RUSS OLSON VOLUME 15B

EQUIPMENT

Description

Assignment of Cars 1909 - 1954

Sub-divisions Within This Volume

- Lightweight Cars
- PCC Cars
- Trains
- Suburban Cars
- Double End Cars
- (Unnamed Divider)
- Car Line Review

LIGHTWEIGHT CARS

1929 photo of derailment
on 7th St. near Snelling Ave.
2028 Dest. sign reads
M'HAHA - 7 - HAZ'L PK

PART V. THE 2000s.

When Twin City Lines finally broke away from their standard design in car building, they tried in several ways to improve their financial position: 1916 per Data Sheet

--First, in ~~1917~~, new cars (2000-2000A) were designed for train operation, cutting platform costs by having a crew of three rather than four to operate two cars. This idea was carried further in 1921 by building 26 trains (1600-1625) from older cars, and another newly designed train, 2002-2003. Designs were changed again, to better suit other cities who wanted new cars, and in 1926 another train, 2004-2005, came out.

--Running costs were cut by building the new cars very light and so cutting down the amount of power they used.

--Next the company had one-man car operation in mind. In 1925 they built # 1- # 4, like the 2000s but smaller, for immediate one-man use on Owen St. and Wilkin St. lines in Stillwater. These were the only cars TCRT built for themselves to run one-man and one-man only. But about this time they were building one-man light cars for other cities, and their train cars 2004-2005 were designed for easy conversion to single unit one-man cars. Finally, late in 1927 ~~1926~~, the last 25 cars for TCRT were being built--2006-2030--and though these were two-man only for several years, very little had to be done to make one-man cars out of them.

--Not the least important about the new light cars was that they were comfortable, less noisy, streamlined--they were "modern" (that silly word), and people liked to ride in them. With new cars like these, the company could hope to keep more of its customers away from automobiles. All through the 1930s, company ads showed a 2000, the picture captioned "America's Most Modern Streetcar".

For the story of 2000-2005 during the years they were used as trains, see the section on trains. When 2004-2005 were being built, newspaper accounts said they would be tried on Selby-Lake, and if they were O.K., then 50 more would be built.

As it turned out, the company made only 25 NEW CARS:

2006 2007 2008 2009 ~~2020~~ 2010 2011 to North Side, Dec. 1927.
2012 2012 2014 2015 to East Side Jan. 1928.
2016 2017 2018 2019 to Lake St. Jan.
2020 2021 to Nicollet Jan.
2022 2023 2024 2025 2026 to Snelling Jan.
2027 2028 2029 2030 to Duluth, last car out Jan. 26, 1928.

Nicollet had the three 2000 trains at this time, and they probably ran 2002-2005 more as single cars now than as trains. Later in 1928, all train equipment was removed from 2000-2005, and they were standardized with the new cars, and all stayed at Nicollet.

These new cars ran mostly on busy lines. For several years, the North Siders were on Chicago-Penn-Fremont regularly. At East Side, they ran two-man on Grand-Monroe most of the time.

1930 notes indicate that Duluth used their new cars on Rondo-Maria and St. Clair-Payne (two-man).

ONE-MAN SERVICE BEGINS. The first one-man car in the Twin Cities ran May 18, 1930, on the Cedar Ave. shuttle (from 42nd to 50th St.) The first car was # 4, transferred from Owen St. to Lake St. for this run. (This left # 1 - # 3 ~~frax~~ for the Owen St. and Wilkin St. lines; South Stillwater line was likely two-man? NO to the end).

Meanwhile it appears that 2021 was transferred from Nicollet to Lake St.

In August of 1930, the shops made the minor changes necessary to make one-man cars out of 16 of the 2000s:

2023: this Snelling car was (I am guessing) the experimental one-man car; for one-man operations, it was transferred to Lake St., and two-man 2021 went to Snelling.

2016 2017 2018 2019 2020, Lake St. cars; with these and 2023, the Franklin-11th line was made one-man on August 10. (In 1931, 2020 and 2023 got foot-operated brake pedals, which they had for a couple years).

~~2023~~ 2012 2013 2014 2015, East Side cars; these went on Bryn Mawr August 10.

2006 2007 2008 2009 2010 2011, North Side cars; these made the Broadway line one-man August 10.

Not till late 1931 did more lines go one-man, and these got newly rebuilt standard cars. (Nicollet's 2022 had gone to Snelling).

DEC. 31, 1931, CAR LOCATIONS

EAST SIDE	NICOLLET	NORTH SIDE	LAKE ST.	SNELLING	DULUTH
1-man on Bryn Mawr; or 2-man	2-man only	1-man on Broadway; or 2-man	1-man Cedar Ave. # 4	2-man only	2-man onl
				2021-2022 2024-2026	2027-2030
2012-2015	2000-2005	~~2006x2022~~ 2006-2011	1-man Frank.-11; or 2-man 2016-2020 2023		OWEN ST. 1-man # 1 - #3

The other 15 2000s were rebuilt to one-man in February, 1932.

2021 2022 2024 2025 2026 were kept by Snelling, and Duluth's 2027 went to Snelling; with these, the first one-man service in St. Paul was begun April 1st, on the Snelling Crosstown line, mid-days and nights.

2000 2001 2002 2003 2004 2005 remained at Nicollet.

Duluth's 2028 2029 2030 went to East Side; and East Side was also given North Side's 2011 and Lake's 2016, both already one-man.

With these at Nicollet and East Side, Grand-Monroe was made one-man, mid-days and nights, on March 16.

For a year on Snelling Ave., and about two years on Grand-Monroe, conductors got on these 2000s for the rush hours. The 2000s were capable of running two-man anywhere until 1938, when the bell cords and conductors' box and posts and railings were removed. But even later, several times during the war and the years after, when every car was needed, 2000s and once even # 1 or # 2 operated two-man on Chicago-Penn-Fremont, the conductor standing by the motorman and picking up the load through the front doors.

APRIL 1932 CAR LOCATIONS

EAST SIDE	NICOLLET	NORTH SIDE	LAKE ST.	SNELLING	OWEN ST.
2011-2016 2028-2030	2000-2005	2006-2010	# 4 2017-2020 2023	2021-2022 2024-2027	# 1-# 3

RUSHING THE CHANGE TO ONE-MAN. As 100 new cars were turned out in 1932, one-man service was added as fast as possible. In April and May, 50 new standard one-man cars went on Minneapolis lines, and then the company turned their attention to St. Paul, where the other 50 would go. But before any of these were ready in early June, Rice-Stryker was made one-man, mid-days and nights, on June 1, by making the following transfers:

2028-2030, East Side to Duluth (East Side loses 3 cars).
2026-2027, Snelling to Duluth;
2020 and 2023, Lake St. to Snelling;
2016, East Side to Lake (so Lake lost 1 car);
2010, North Side to East Side (North Side lost one).

The lines in Stillwater were abandoned Aug. 11, 1932, and # 1, # 2, # 3 were sent to Snelling. # 3 was made into a double-end car; see section on special cars for further notes. By the end of the year, # 2 was sent to Lake St., perhaps at first as a spare for # 4 on Cedar Ave. # 1 probably just stood around Snelling, until early in 1933 it also went to Lake St. Of the three "pups" at Lake, one ran on the Cedar Ave. shuttle till it was abandoned on Sept. 17, 1933; the others ran on Franklin-11th. There, in April, they were having some trouble, as in several cases when a "pup" went dead, the 2000s following were unable to couple up, due to # 1- # 4 not having drop platforms like the 2000s. Special drawbars were put on the pups so they could couple up with other cars.

Motormen in the 2000s were cramped into a pretty small space, and one time complained they should get double pay for driving a 2000 on a full run, as they had to lay off all crippled up the following day. Changes were tried out from time to time, and different seats tested, and when 2000 was rearranged in early 1933, it was run a while on Snelling Crosstown so the motormen there could see how they liked it, Nicollet meanwhile using 2020. Both cars returned later.

~~March~~ April 3, 1933, Rondo-Maria was made all one-man, and to run that line 100% with 2000-type cars, Lake St. sent 2017-2019 to Duluth. This left only 2016 and the three pups as regulars on Franklin-11th. The chief use of the 2000s is indicated below:

JAN. 1, 1934 CAR LOCATIONS.

EAST SIDE	NICOLLET	NORTH SIDE	LAKE ST.	SNELLING	DULUTH
Bryn Mawr Grand-Monroe	Grand-Mon.	Broadway	Frank-11th	Snell.Ave.	Rondo-Maria
2010-2015	2000-2005	2006-2009	# 1-# 2 # 4 2016	2020-2025	2017-2019 2026-2030

TRANSFERS JULY 2 & 3, 1934.

It appears that the 2000s were taken off Grand-Monroe at this time. Grand-Monroe went all one-man on July 9. Nicollet lost all its 2000s, and East Side a couple; both stations got standard one-man cars in return. The order to transfer cars just specified so many to go from one station to another, not certain cars:

2 2000s, East Side to Snelling: 2014-2015 were sent.

4 2000s, Nicollet to Snelling: 2002-2005 were sent. Perhaps Snelling put 2000s on its Hamline-So. Robert line, which had gone all one-man early in June.

1 2000, Nicollet to Duluth: 2000 it was.

12 2000, Nicollet to North Side: they sent 2001. This gave North Side one spare car for Broadway, as only 4 cars were scheduled. If they had ordered which cars were to go where, this would likely have been 2005, not 2001.

May 18, 1935, the FRANKLIN-11th line became part of ROBBINSDALE-FRANKLIN, and East Side ran the cars along with North Side. A number of Lake St. motormen went to East Side, and so did the Franklin-11th cars: #1, #2, # 4, 2016. However, "big cars" were always regular on Robbinsdale-Franklin, and EastSide put the three pups on Bryn Mawr, plus an occasional 2000; their 2000s now went out on Grand-Monroe again most of the time.

Throughout the summer of 1937, both North Side and East Side ran 2000s every Sunday on Robbinsdale-Franklin, when the other lines couldn't use them all. This was in line with the policy of getting all the use possible out of these cars, since they ran on less juice. While the big cars were on day-runs or in for inspection on alternate days, the 2000s were almost always on night repair schedules, so they could be available for full runs every day.

FEB. 21, 1936 ASSIGNMENT

EAST SIDE	NORTH SIDE	SNELLING	DULUTH
Bryn Mawr	Broadway		
# 1-# 2	2001	2002-2005	2000
# 4	2006-2009	2014-2015	2017-2019
Grand-Mon.		2020-2025	2026-2030
2010-2013			
2016			

INCREASING 2000 MILEAGE. To get more use of these cars, Nicollet got four of them on July 7, 1939, to use on Grand-Monroe, with arrangements for night repairs. They got 2008-2009 from North Side and 2020 2010-2011 from East Side.

Buses had just gone on the Bryn Mawr line on June 29, 1939, though this at the time was only supposed to be temporary while a bridge was repaired. The three pups stood idle at East Side for some time. But in November of that year, # 4 was taken and made into a double-end car as a spare for the Fort Snelling Stub. (The original order was to convert # 1). See double-end cars, special car section.

In May, 1941, # 1 and # 2 were fixed up again, and sent to North Side to run on the Broadway line.

SNELLING's 2025 was switched about rather strangely. It went to Duluth April 29, 1937, for the summer; back to Snelling Dec. 16. Then to Duluth again April 18, 1938; back to Snelling Oct. 27. Once more to Duluth, April 13, 1939; thereafter, it seems, it became a regularly assigned DULUTH car.

USE OF 2000s, 1939-1947

EAST SIDE	NICOLLET	NORTH SIDE	SNELLING	DULUTH
Grand-Mon.	Grand-Mon.	Broadway	mostly Snell.Ave.	mostly Rondo-Stryker
2012-2013	2008-2011	# 1-# 2	Ham.-Cher.	Maria-Ft.Sn.
2016		2001		
		2006-2007	2002-2005	2000
			2014-2015	2017-2019
			2020-2024	2025-2030

Before the war, when some cars could be stored during summer, Duluth would store 2000s, as they had no gatecars. (?)

New sign rolls made for Minneapolis 2000s about 1938 listed Broadway and Grand-Monroe, where they were regular; but Bryant-Johnson signs were added, in case East Side or Nicollet should wish to use a car somewhere other than Grand-Monroe; and for North Side, 34 Av. S.-N. Bryant signs were put on the rollers. In St. Paul, almost all lines were listed on the sign rolls.

During the war and for a couple years after, North Side, with four cars running on Broadway, usually had a spare 2000, which had to be used somewhere. It was most normal for it to make a Penn or Fremont "Loop" trip in the morning, and a trip on 34th Ave. So. in the afternoon. (I have seen an East Side 2000 make a Bryant-to 54th-Penn trip once, after the war).

The St. Paul 2000s were also used a great deal on St. Clair-Payne and Grand-Mississippi. Sometime after the war, about 1948, they were taken off the Maria-Fort Snelling line for good. I never saw them run on Randolph-Hazel Park, Dale-Phalen, Rice-So. St. Paul.

About the time they got their first group of PCCs in 1947, Snelling sent 2024 to Duluth for a while, but soon got it back.

When RONDO-STRYKER went bus Jan. 24, 1948, Duluth transferred 2000 to North Side, and 2017 2018 2019 2025 2026 to Snelling. By now there were PCCs in base service on many local lines, and the 2000s were more pullout cars than anything else, except that they still held full sway on Broadway and Snelling Ave.

1 and # 2 had got rehabilitated in 1947, but they never ran a great deal after that.

Also in 1948, Snelling sent 2014 and 2015 to East Side.

More PCCs arrived in 1949, and # 1 and # 2 got scrapped. On Nov. 15, North Side sent 2000 back to Duluth, and about that time East Side sent 2012-2013 to Nicollet.

JAN. 1, 1950 CAR LOCATIONS.

EAST SIDE	NICOLLET	NORTH SIDE	SNELLING	DULUTH
2014-2016	2008-2013	2001 2006-2007	2002-2005 2017-2026	2000 2027-2030

Very early in 1950, North Side stored its 2000s, preferring to have more gatecars in service instead. They did have to shine up 2006 once more, though, and it ran a night run on Broadway on April 3. April 16, 1950, was the last day of the Broadway line, which had to be closed down when the Broadway bridge was; and on that last Sunday, with big cars on the regular runs, the railfans made a special tour of the line in little # 4.

That summer, the 2000s went into storage everywhere. But they had one more winter of service left. ~~2000~~ 2001, 2002, 2004 were scrapped for parts late in the year (and burned on Dec. 20), but most of the others were fixed up.

These were given to Lake St. to run on the 34th AVE. SO. line: North Side's 2006-2007, Nicollet's 2008-2013, East Side's 2014-2016 (eleven cars).

IN SERVICE, 1950-1951 WINTER

LAKE ST.	SNELLING	DULUTH
34 Av.S. runs	Snell.Ave. runs pullouts: Ham.-Cher. St.Cl.-Payne Grand-Miss.	pullouts: St.Cl.-Payne Grand-Miss.
2006-2016	2003 2005 2017-2026	2000 2027-2030

Next summer, all were stored again. At that time, a few cars were still being repainted, and 2020 was among them. It really got a nice job; but it never ran again, and no 2000s in St. Paul ever ran again.

But Lake St. used its 2000s again the next winter. In February, there was a fire and explosion in 2011 on the line, damaging the rear end of the car, and it was never used again. The others went out of service in the spring.

In the fall of 1952, when most of the gatecars on the system had been burned, they were followed by all of the 2000s except 2011, which stood around the shops till at last it was burned on May 18, 1953.

PCC CARS

PART VI. THE PCCs.

The excellent service which the Twin Cities got from their streetcar fleet during World War II, convinced the company that streetcars were here to stay forever, and accordingly they set out on a post-war modernization program, to cost $20,000,000. Newx cars were bought, tracks re-laid here and there, over a million spent on new power house equipment, and some lines switched over to buses, with nearly 300 new buses bought by 1948.

Streetcars were still to stay on all the busiest routes, and since the 2000s were no longer "America's Most Modern Streetcar", the company got one PCC for trial service, and then placed several orders for these streamliners with the St. Louis Car Co.

THE FIRST PCC. In January, 1945, the St. Louis Car Co. took PCC 1547, one of a group it was then building for Pittsburgh, and sent it to the Twin Cities as a test car. It arrived in St. Paul on Jan. 17. It was run x in a number of test runs, along with electric-heat car 1328, measuring power consumption, speed, etc. On Feb. 23, 1547 was put into regular service, still in its red Pittsburgh colors. It was tested two-man on the Interurban line, and one-man on several lines, particularly Hamline-Cherokee. Having been built one-man, the fare box was at first just hung on the post beside the center doors for two-man service; later a regular conductor's seat was installed, with fare box post opposite the center doors.

On records made of it during its test runs, the company called it number 3000, but to the trainmen, checkers, etc., it was 1547. Late in the spring it was repainted in TCL's new color scheme for PCCs, and was then numbered 299.

TCRT was well pleased with this car, except for a slight disappointment that it couldn't take a much bigger crush load than the older cars. An order for 40 new cars was soon placed, with some changes insisted on by TCRT: cars to be 9 feet wide, the first PCCs ever built so wide for city service; electric horns to be installed; all seats to face forward, with single seats on one side of front half of car, to increase standing room for rush hours.

Though these cars were expected in 1945, there were many material shortages to contend with, and St. Louis Car Co. had many orders on hand, so the cars were not built until early 1947. Meanwhile design had advanced, so that when the new cars arrived they were "all-electric" (299 had some air equipment).

40 NEW CARS. In December 1946, and January 1947, the first group of new cars arrived and went into service, cars 300-339. All were two-man cars (capable of one-man running, as on owls, etc), and they went on the Interurban line, which all through its history had got the first and the best in all new car designs. Thus Minneapolis and St. Paul xxard shared the new cars, and they were best shown off to Twin Cities visitors.

Car 313 was not noted out in service until March, being kept in the shops till then, probably for experimentation.

AVERY® M QL119 Pat Pend.

PCC GENERAL SERVICE NOTES.

WHERE TO PUT THEM. The first PCCs, as noted, went on the busiest line on the system, Interurban probably having more riders, for mileage run, than any other line; and this line became a showpiece for both cities. One might assume that all the heaviest lines should be among the first equipped with PCCs; but, with very good reasoning, this was not done. The PCCs, with their foot-pedal operation, were the very thing needed for faster, smoother, one-man operation; whereas the heaviest lines in the Twin Cities had two-man service during most hours, much more reliable than one-man service, no matter what cars were used. Therefore all PCCs after the Interurbans were equipped for one-man operation only, and in general were placed on the heaviest of the one-man lines, providing that both cities get a fair share of them.

WHERE THEY COULD RUN. Innumerable rumors were always floating around that the new cars could not run on certain lines on account of not being able to go over certain bridges, etc. These rumors were just about 100% false, and were mostly disproved when the PCCs did go into service on the routes questioned. The company did actually have some apprehensions as to what might happen if a PCC got out of control going down the Selby tunnel, and they may have intended to keep them off that line for that reason. Some did run westbound (up) through the tunnel; these were Snelling Station extra cars which began with a trip or two on Interurban and ended with a trip on Selby, To Prior, pulling in to the station from Prior Ave; these were noted in the earlier years of PCC operation, but not in the later years.

PCCs were not put on the heaviest St. Paul one-man line, Randolph-Mahtomedi, possibly because of complication if they should get in trouble out on the suburban part of the line; but the railfans did run a PCC out to Mahtomedi.

OLD CARS AND PCCs. There was never 100% PCC operation on any line, except for a short period in St. Paul, when many lines had been abandoned, and there were then enough PCCs for certain remaining lines, so that the old cars didn't have to be used. ~~Thexx~~

The old cars were so well maintained that they could run with the PCCs on any line, and it was common for PCCs, button cars, and gatecars to run together, all maintaining the schedules just about as well. Had PCCs been segregated to certain lines, traffic conditions would probably have prevented any real speed-up of schedules anyhow. (Similarly, in earlier years, gatecars and button cars were always officially just as good for running the service; there were "two-man cars" and "one-man cars", and if the latter was a little faster, the time gained in running was lost again during loading.)

Interurban had enough PCCs, so that most of the time, the base service was by PCC, with plenty of button cars and gatecars added in the rush hours. Local lines mixed both types of cars in both base and rush hour service.

Early in 1947, after arrival of the first group of PCCs, the shops stopped their program of 5-year rehabilitation for gatecars, probably expecting new PCCs would replace all these within several years; but all the standard one-man cars still got their ~~regualr~~ regular rebuilding when due, until in 1950 the main shops at Snelling were closed and the end of the streetcars was decided upon.

50 NEW CARS: 340-389. As these began to arrive in August, 1947, to be put on the busiest local lines in both cities, the first cars went into service at Nicollet Station, and cars 340-361 went there. These were all GE-equipped, from 340-364, while 365-389 were to have WH equipment. Sometime during the arrival of these PCCs, it was decided that each station should have cars with both types of motors, and East Side got three of each kind, 362-364, the last of the GEs, and 365-367, the first of the WH cars.

Nicollet therefore transferred 353-361 over to St. Paul, and when all the new cars had finally been put in service in October, they were divided thus:

Nicollet	340-352	GE --	368-380	WH	26 cars
East Side	362-364	GE --	365-367	WH	6 cars
Duluth	357-361	GE --	387-389	WH	8 cars
Snelling	353-356	GE --	381-386	WH	10 cars

These lines got PCC service now:

Bryant-Johnson	Nic & E.S.
Glenwood-4th Av.	Nic.
Grand-Mississippi	Snell. & Dul.
St. Clair-Payne	Snell. & Dul.

Schedule Dept. considered that Nicollet's 26 cars would be divided in ratio of 15 for Bryant, 11 for 4th Ave.

Of the older two-man PCCs at Snelling, several might be seen daily on the St. Paul local lines, as there were plenty for Interurban base service. But never until the spring of 1952, were the one-man PCCs used on Interurban.

50 NEW CARS: 390-439. Many of these were to be used to increase PCC service on lines which already had PCCs, and to put them on several other local lines. It is possible that they may not have been intended originally for Nicollet, then a two-man line, but as all the company's costs were rising tremendously, and riding was dropping off, they put 2 & 2 together and decided to take all the conductors off Nicollet, and put the PCCs on that line.

Lake St. was supposed to have got 7 of these cars for Bloomington, and one of the car house pits at Lake (4 track) was fixed up for PCC inspections; but it was then decided to defer PCC operation out of Lake St., and the 7 cars which would have gone there were re-assigned, 5 to Snelling, 1 to Duluth, 1 to East Side.

These cars arrived in June and July of 1949, and the following lines got their first PCC service:

Hamline-Cherokee	Snell. & Dul.
Bloomington-Col. Hts.	East Side
Grand-Monroe	E.S. & Nic.
Nicollet-2nd St. N.E.	Nic. (commenced one-man & PCC service July 30, 1949, after all new cars were in service).

GE ~~Westinghouse~~-equipped cars arrived first, in June: 415-429 went to Snelling, 430-432 to Duluth, 433-439 to East Side. Then the WH cars came in, in July, and all 25 of them, 390-~~42~~ 414, went to Nicollet.

The Schedule Dept. had figured out this division of the new cars:

25 to Nicollet: 18 for Nic.-2nd St; 7 for Grand-Monroe.
7 to East Side: 5 for Bloom-Col. Hts; 2 for Grand-Monroe.
15 to Snelling: 8 for Hamline-Cherokee; 3 Grand-Miss; 4 St.Clair-P-Ph.
3 to Duluth: 2 for Hamline-Cherokee; 1 for St.Clair-Payne-Phalen.

These cars had new official sign readings. East Side almost always used the 400s on Bloomington, as 300s did not have "Bloomington to 54th" reading and would need board in window. Older Nicollet cars had no "Nicollet to 62nd" reading; few attempts made to keep new cars on Nic.

PCC ASSIGNMENT: SEPTEMBER 1949 TO NOVEMBER 1951.

EAST SIDE	NICOLLET (all lines)	SNELLING	DULUTH
Bloom-Col.Hts. (mostly 400s) Grand-Monroe Bryant-Johnson	Nicollet-2nd St Grand-Monroe Bryant-Johnson Glenwood-4th Av	Interurban, & some local use	St. Clair-Payne-Phalen Grand-Miss. Hamline-Cherokee
362-367 433-439	340-352 368-380 390-414	299-339	~~356~~ 357-361 387-389 430-432
		St.Clair-Payne-Phalen Grand-Miss. Hamline-Cherokee	
		353-356 381-386 415-429	

NO MORE NEW CARS. How many more PCCs would have been bought, had things gone well for the ~~old~~ management, is anybody's guess. The general story going around late in 1949 was that 50 more were on order. Had they come, some would no doubt have gone to Lake St. Station, and very likely some, it was said 32 of them, would have gone on Chicago-Penn-Fremont, to make that line one-man.Perhaps eventually base service on almost all lines would have been by PCC. The company was however in difficulty, and while they were after fare raises there were stories of cancelling or at least delaying their orders for new cars. Meanwhile the new fare raises produced an alarming decrease in riders.

In November of 1949 a new management was voted in by the stockholders, and one idea of the new officials was that all this modernization must wait, that it was costing too much, that they had to make a lot of economies before they could buy anything new. So there were never any more new streetcars (and soon there were no more old ones, either).

1951 PCC RE-ASSIGNMENT. At the end of November, 1951, it was decided to be somewhat wasteful to have both GE and WH cars at each PCC station, requiring stocks of spare parts for each type of car. Therefore these shifts were made, without changing the number of PCCs at any station:

~~WH~~GE 340-352, 13 cars Nicollet to Snelling
~~GE~~WH 365-367, 3 cars East Side to Nicollet
WH 381-386, 6 cars Snelling to Nicollet
WH 387-389, 3 cars Duluth to Nicollet
GE 356, 1 cars Snelling to Nicollet (to keep 51 cars at Nic.)
GE 427-429, Snelling to Duluth
GE 424-426, Snelling to East Side.

This system did not actually work out so well. For example, East Side now had all GE-equipped cars, but every so often they would get a cripple over there, a Nicollet WH car, or sometimes Snelling Interurban cars; and in some cases, these cripples had to stand there a couple of days, while they sent to the shops or to Nicollet for necessary Westinghouse repair parts.

DECEMBER, 1951, PCC ASSIGNMENT
(Same car lines as on last assignment)

EAST SIDE	NICOLLET	SNELLING	DULUTH
362-364 GE	356 GE	two-man	357-361 GE
424-426 GE	365-414 WH	299-319 WH	427-432 GE
433-439 GE		320-339 GE	
		340-355 GE	
		415-423 GE	

From 1950 on, there was a good deal of trouble with the air equipment on PCC 299, and it was sometimes out of service several months at a time ~~[illegible]~~ while ~~repairs~~ repairs were experimented with. It would run a few months, then be stored several months, then be fixed up again, and so on, until in 1952 it finally went out of service for good.

DULUTH STATION was closed down in April, 1952; their eleven PCCs went to Snelling Station, where they continued to run on the same lines they had been on. When buses went on St. Clair-Payne-Phalen on Sept. 6, practically all the service left in St. Paul was by PCC, except for the Selby-Lake and Como lines.

Meanwhile on Oct. 18, buses went on the Grand Ave. line in Minneapolis, and to have PCCs on East Side's new share of Nicollet-2nd St.-Monroe, Nicollet cars 356 and 365-368 were temporarily transferred to East Side. After a couple of weeks, 365-368 were returned to Nicollet, and for another couple of weeks, East Side had only one PCC for its runs on that line.

On Nov. 1, 1952, buses took over Grand-Mississippi and Hamline-Cherokee, the last local lines in St. Paul. Those two lines saw a few button cars again during their last week of operation, as the shops started early on the job of changing Snelling cars over to East Side cars. East Side button car signs were fixed up for the PCCs, by cutting a narrow strip off each side of the sign roll. Some 38 PCCs were to go to East Side, but plans were afterwards changed, so that only 31 went over. 330-336 were supposed to have gone, and 333 actually did go to East Side and was called back.

East Side got the following cars, some late in October, most early in November, and PCCs now went on the Como-Oak-Harriet line:

337-339 GE two-man
340-355 GE
357-361 GE
423 GE
427-432 GE

The three two-man cars were used some, but not very much, on two-man Como runs, of which there were only a few left; it turned out that the old conductors preferred the old cars.

Nicollet signs were placed in 353-355, and these, with 356, were used by East Side on the Nicollet line.

DECEMBER, 1952 PCC ASSIGNMENT

EAST SIDE	EAST SIDE-NICOLLET CARS	NICOLLET	SNELLING
337-352 357-364 423-439	353-356	365-414	299-336 415-422
Como-Oak-Harriet Bryant-Johnson Bloom.-Col.Hts.	Nic.-2nd-Monroe (Also OK for Bryant-Johnson)	Nic.-2nd-Monroe Bryant-Johnson Glenwood-4th Av.	Interurban

---

FIRST SALE ARRANGED. In January of 1953, the company arranged to sell 340-359 to Shaker Heights Rapid Transit, with rebuilding to be done at Snelling Shops. Car 345 went to the shops for experiments on Jan. 15, but was returned to East Side March 1, with little done to it except that a new curtain panel was installed behind the motorman's seat. 346 then went to the shops, and was partly sanded down for Shaker Heights, but as the main work had to be delayed, after several weeks 346 was repainted where necessary and sent back to East Side. 344 and 350 finally went out of service in May; 340-343, 345-349, ~~352x~~ 351, 353-354 in June; and the rest of the 20 cars in July. 340-344 were shipped to Shaker Heights in September, these five cars being equipped for regular single car running only; the other 15 were kept at the shops awaiting parts for train operation; train couplers were added in the summer of 1953, and other work done now and then. These 15 cars would be about the last to leave the company's property, probably in February and March, 1954.

On Feb. 21, 1953, buses went on Bloomington-Col. Hts., which had had some PCC service. In February, a broken trolley wire hit 418 on the Interurban line, and burned a bad hole through the roof; this car never ran again till it was fixed up and sold. Nicollet's 383 and 408, crippled in April, had a number of defects, and were not fixed by the shops until the time came for selling them.

In March, Public Service of New Jersey ordered 30 PCCs. These got quick TCRT rehabilitations, but were not repainted or changed in any major way. They could be shipped out a few days after being removed from service. So Newark would have all GE-equipped cars, they arranged to buy 320-339, 360-364, 415-419. Finally in August, Mexico City agreed to buy TCRT's remaining 91 PCCs.

The Bryant-Johnson line got less and less PCC service in 1953, with most of Nicollet's runs on that line transferred to Lake St. on Feb. 21, additional rush hour and weekend work transferred April 18, and the owls on July 11. EastSide's small share of work on the line still had PCCs, but later in the year even these disappeared gradually.

On April 29, Nicollet transferred a number of Nicollet-2nd St. runs to Lake St., with button cars. From then on there were only a few button cars at Nicollet, and the ~~xxxx~~ remaining Nicollet runs there, and all of Glenwood-4th Ave., had nearly 100% PCCs, till the station closed July 11.

With buses on Selby on July 11, Snelling stored all button cars; these had run on Selby and also on short Interurban pullouts which doubled with Selby. This left only PCCs on Interurban for ~~awhil~~ a while except that East Side extras on the Minneapolis end sometimes had old cars (and sometimes PCCs).

JULY 11, 1953 CAR LIST

EAST SIDE Como-Oak-Harriet Bryant-Johnson	EAST SIDE-NIC.CARS Nicollet-2nd-Monroe Glenwood-4th Ave. Bryant-Johnson	SNELLING Interurban	SHOPS Out of Service
		300-336	299
337-339		415-417	340-359
360-364	365-382	419-422	383
423-439	384-407		408
	409-414		418

(Note: several of Shaker Heights cars were actually still in service at above date, but were soon withdrawn; and several other cars may have been crippled and have seen last service by this date, but list gives general idea of the summer service.)

On July 28, the first PCC was shipped out by TCRT: East Side's 360. Fourteen more followed in August: East Side's 337 and 361-364; Snelling's 320 321 324 326 327 329 330 332 335. Snelling now put their 12 ex-Selby button cars back in service, and more button cars went back to East Side from shops storage. 323 was also inspected and tagged for Newark at this time, but returned to service, as Newark only wanted half the cars at once. In October, 322 325 328 333 334 416 417 418 419 from Snelling, and 338 339 from East Side, went to Newark, and more button cars were fixed up for Interurban late in the month; and early in November, when that line had got buses on the St. Paul end and only old cars on the Minneapolis end, 323 331 336 and 415 were shipped out, completing the Newark order.

During this period, from July to November, it should be noted that Chicago-Penn-Fremont got its first regular PCC service: regular once a week that is, with buses the rest of the time. These weekly franchise runs were made late Thursday nights by 4th Ave. night run cars, with whatever car that night run had, usually a PCC.

As repairing and repainting of cars for Mexico began in August, any cars needing repairs were taken for that work, and others were called in when wanted. Cripples sent to the shops by East Side were never returned to service, but a PCC was occasionally fixed up for Snelling. 383 and 408 were among first cars sent to Mexico; 299 among the last. Following notes generally indicate when cars were withdrawn from service, not shipping dates (see car histories):

July: Snelling's 304; East Side 400 414 424 436.
(Cripples fixed for E.S. in August, probably the last, 381 and 429).
August: Snelling 420 421 422; East Side 372 391 392 393
410 412 425 432 ~~437~~.
September: by the 18th: Snelling 312 (damaged, to Mexico much later); East Side 401 409 437.
By Oct. 8: E.S. 368 376 385 395 405 411 423 431 435; Snelling 303.
By Oct. 21: E.S. 371 374 378 384 397 404 413.
By Oct. 28: E.S. 426 439; Snelling 307.
On Oct. 29: E.S. 375 407 sent in; and Snelling 316 crippled.

Thus on Oct. 30, at the time Lake St. and Snelling were supposed to be on last day of operations, 46 of the Mexico cars and all the Newark and Shaker Heights cars were out of service; while 45 of the Mexico cars were still running.

OCTOBER 30, 1953: 45 PCCs IN SERVICE

EAST SIDE- 7 Harriet cars	EAST SIDE- 23 Nic & 4 Av. cars	SNELLING- 15 Interurban cars
427-430	365-367	300-302
433-434	369-370	305-306
438	373	308-311
	377	313-315
	379-382	317-319
	386-390	
	394	
	396	
	398-399	
	402-403	
	406	

(East Side cars with either type of signs also used on Bryant line)

On that night, buses were to go on four more lines, Lake St. and Snelling were to run their last cars, and PCC service was to end. As Lake St. Bryant and Nicollet men pulled their button cars in to East Side, East Side men were to pull their PCCs in to Snelling from the line, except that one man, with car 402, was to pull in to East Side, that car to be saved for Nov. 1st railfans' special.

But the Minneapolis conversions were delayed, though the St. Paul end of Interurban was converted. Car 308 ran that night as the last car ever in service in St. Paul. Minneapolis Interurban runs had to be continued; car 300, on the owl that night, pulled in to East Side, which kept 300 for quite a while. On Saturday East Side ran regular Interurban runs with button cars, while Snelling ran football extras, with some PCCs; thereafter Snelling ran all the runs again, but used only old cars, and their 14 PCCs (other than 300) were stored to await Mexico work.

East Side had to keep running its PCCs on account of the general car shortage. 406 was used by the railfans on Nov. 1st, the trip including a run over Interurban through St. Paul.

Old cars not used in over a year were now fixed up for East Side. 380 was withdrawn from service Nov. 3, and these by Nov. 11: 379 386 398 399 402 427 428 429.

Meanwhile, on Friday , Nov. 6, all the remaining PCCs, including the few with Harriet signs, were restricted to operating on the 4th Ave. line. The one exception was car 300, which did rush hour pullouts on Bryant or on Harriet, probably the last PCC ever used on the Harriet line, using a card sign in the window. 300 went to the shops about Nov. 12 or 13, and 430 and 434 followed it within several days, leaving 19 PCCs running.

379, already listed withdrawn, had been somewhat banged up when an auto knocked it off the tracks Sunday night, Nov. 8,, and after that PCCs were not used any more on Saturdays or Sundays. On Nov. 19, the motorman of 433 pulled it in and left the defroster switch on, and the resulting fire caused a lot of damage. 366 hauled it to the shops, and 367 370 381 and 390 went in also. On Monday, Nov. 23, and for the last week of service, the PCCs were xxxxx restricted to pullouts only, mostly on 4th Ave., several on Nicollet; there were 13 left running. None were used Thanksgiving Day; on Friday, Nov. 27, the 13 cars ran on pullouts, with car 403 getting on to a 4th Ave. night run on account of a car markup mixup. On that run, 403 was the last PCC ever in service in the Twin Cities; the delayed conversions went through that night, and on Saturday the 13 cars went to the shops to await work for Mexico.

TRAINS

PART VII. TRAINS

In the 1890s and early 1900s, when small single truck cars were standard on the system, trailers were in very common use, especially during rush hours. But this kind of operation ended when TCRT built its own big cars, each capable of taking loads of 125 or more. Not until 1916 did the company again experiment with trailer operation.

That year they were building and testing a new two-car train, with the cars built lower and lighter than the standard cars. If the new cars were successful, they would become the company's new standard; and eventually these two train cars evolved into the lightweight 2000s.

2000-2000A, the first train composed of these new cars, was all ready for regular running in April, 1917. Trailer 2000A had motors, but no trolley or controls, and these cars ran only as a train until they were separated for good in 1928. The train was permanenly assigned to Nicollet Station, but during its first couple of years, almost every station tried it out on various lines. In early photos, it is shown on Como-Harriet and on Hazel Park. Scattered notes indicate how it was tried out in many places; following is a two-months' schedule for the train in 1919:

April 14-April 26	Dul. Sta.--South St. Paul line
April 28-May 10	Snelling --Grand Ave. line
May 12-May 24	East Side--Oak-Harriet
May 26-June 7	North Side--Chicago-Fremont

Next it went to Lake St., and on June 25 was ordered transferred from there to Nicollet. An Oct. 28, 1919 note orders the train, in the shops at the time, to be sent to North Side. (During this same time, the first front exit car, 1788, was being transferred around the same way.)

2000-2000A was still at North Side on Dec. 23, 1919, though all this time it is considered assigned to Nicollet. It was regularly given a St. Paul license, including one in 1920--- one license being installed for the two-car train. By April, 1920, the train was at Duluth, and it was there again Sept. 6, 1920 (and may have stayed there all summer).

THE FIRST REBUILT TRAIN. In the fall of 1920, the shops began rebuilding 300 standard cars into front exits; and the first of these, done on Oct. 11, was made a train. The motor car was Nicollet's 1590; and for its trailer, without motors now, 952 was rebuilt into 1590A. This train was assigned to Nicollet; and while it got a good try-out there, 2000-2000A remained at Duluth.

MORE NEW TRAINS. In 1921, 25 additional train sets were built, with motor cars taken from the 300 cars being rebuilt to front exits, and old 737-761 used for the trailers. At the same time, designs for new cars were being advanced, and another brand new train, 2002-2003, with motors in both cars but all the controls in 2002, was built in late 1921.

THE NEW 1921 TRAINS.

Construction on these began in the summer, after 240 of the 300 front exit cars were ready. The shops were only authorized to make trains out of cars as they were being rebuilt with their front exits; still they wanted all the train numbers to be consecutive. 1600-1624 were selected to be the new train numbers; some car numbers were therefore switched around, so that 1600-1624 would all be cars which still required rebuilding.

REVIEW OF NUMBER CHANGING in July & Aug. 1921:

The following cars, already worked on, changed ~~by July 12 1921~~

East Side's Front Exit	1601	became	1599
" " " "	1606	"	1630
" " " "	1611	"	1644
" " " "	1612	"	1650
" " " "	1613	"	1655
" " " "	1618	"	1670
North Side's Front Exit	1602	"	1590
" " " "	1604	"	1626
" " " "	1610	"	1642
" " " "	1619	"	1671
" " " "	1621	"	1699
" " " "	1623	"	1766
" " " "	1624	"	1701
Duluth's Front Exit	1608	"	1633
" " "	1609	"	1640
" " "	1616	"	1669

Nicollet's Train 1590-1590A became 1625-225.

Duluth's Train 2000-2000A became 2000-2001. (Around this time, a front exit door was put on 2000).

1625-225 was transferred to North Side July 22, but soon returned to Nicollet; 2000-2001 went to Nicollet during the rebuilding period.

THE NEW TRAINS.

1600	and	745	became	1600-200	July 12	to North Side
1599	and	758	became	1601-201	July 13	to North Side
1625	and	740	became	1602-202	July 13	to ~~North Side~~ Nic; to N.S. 7-22
1603	and	746	became	1603-203	July 16	to Nicollet; to N.S. 7-22
1626	and	744	became	1604-204	July 28	to North Side
1605	and	748	became	1605-205	Aug. 13	possibly Nic; to N.S. by 9-6
1630	and	742	became	1606-206	July 30	to North Side
1607	and	739	became	1607-207	Aug. 13	possibly Nic; to N.S. by 8-26
1633	and	743	became	1608-208	Aug. 13	possibly Nic; to N.S. by 9-14
1640	and	750	became	1609-209	Aug. 23	possibly Nic; to N.S. by 10-4
1642	and	741	became	1610-210	Aug. 13	possibly Nic; to N.S. by 10-7
1644	and	747	became	1611-211	Aug. 13	to Nicollet
1650	and	751	became	1612-212	Aug. 26	to Nicollet
1655	and	749	became	1613-213	Aug. 26	to Nicollet
1614	and	738	became	1614-214	Aug. 26	to Nicollet
1615	and	737	became	1615-215	Aug. 26	to Nicollet
1669	and	752	became	1616-216	Sept. 26	to Nicollet
1617	and	753	became	1617-217	Sept. 26	to Nicollet
1670	and	754	became	1618-218	Sept. 10	to Nicollet
1671	and	755	became	1619-219	Sept. 25	possibly Nic; Snelling by Oct.

(continued)

1620 and 756 became 1620-220 Sept. 8 to Snelling
1699 and 757 became 1621-221 Sept. 10 to Snelling
1622 and 759 became 1622-222 Aug. 26 to Snelling, at least by Oct.
1766 and 760 became 1623-223 Sept. 25 ~~to~~possibly Lake; Snell.by 10-31
1701 and 761 became 1624-224 Sept. 10 possibly Lake; Snell. by 10-31
NEW TRAIN 2002-2003 , built 11-15-21, ~~to Nicollet~~ to Snelling.

THE CHANGING OF THE NUMBERS was probably spread over a couple of months, July and August. Following may be noted from an Aug. 2, 1921 car location list: In shops, 1605 to become train, last at Nicollet. In shops, 1607 to become train, last at East Side. East Side running old standard 1608 to become train (so ex-old 1633); actually this probably in shops 8-2. Snelling running old cars 1618 1619 1620 to become trains. Duluth running front exits 1608 and 1609, yet to be re-numbered 1633 and 1640. Duluth running 1616, ex-1669, to become a train; and also running front exit 1669, ex-1616. (Though the old car may have stayed at shops after number changing, to await train rebuilding?)

TRAIN ASSIGNMENTS, OCT. 31, 1921

North Side:	1600-200 to 1610-210	(11 trains)
Nicollet:	1611-211 to 1618-218; 1625-225; 2000-2001	(10 trains)
Snelling:	1619-219 to 1624-224; 2002-2203	(7 trains)

Sometime during the next two years, Snelling lost its 1600-type trains; and some were assigned to Lake St., Lake getting two trains from North Side and three from Snelling.

TRAIN ASSIGNMENTS, MAY 30, 1923

North Side:	1600-200 to 1608-208	(9 trains)
Nicollet:	1611-211 to 1619-219; 1623-223 to 1625-225	(12 trains)
Lake St:	1609-209 to 1610-210; 1620-220 to 1622-222	(5 trains)
Snelling:	2002-2003	(1 train)
Duluth:	2000-2001	(1 train)

THE USE OF THE TRAINS. They ran of course in rush hours only. They were kept off certain lines on account of traffic conditions. Their chief uses appear to have been on these lines:

NORTH SIDE: Chicago-Penn-Fremont
NICOLLET: Glenwood-4th Ave; perhaps also the Nicollet line.
LAKE ST: Minnehaha-Fort Snelling

The 2000-type trains in St. Paul probably ran mostly on Payne-Groveland (Grand Ave., that is).

Nicollet (N. W. Terminal)
Glenwood - 4th Ave. So.
(Munsingwear)
Bryant - Johnson
Chicago-Penn- Fremont

In November, 1923, 2002-2003 was rebuilt so that it could run either as a train or as single cars. At this time, or soon after, it was transferred to Nicollet. There it was usually run on the Nicollet line in this manner: a single car, usually 2003, was on the line in base service all day; during the rush hours, the other car was hooked on behind; this probably mostly on the Nicollet line.

NEW TRAIN 2004-2005, built July 15, 1926, was assigned to Nicollet, and was probably run in the same way as 2002-2003.

2000-2001 was transferred from Duluth to Snelling Dec. 9, 1924, supposedly temporarily; front exits 1525 and 1537 were exchanged for it. At Snelling, it ran a morning trip on South St. Paul, then doubled on to Snelling Crosstown. In the afternoons it made another trip to South St. Paul, followed by one trip on Interurban.

On Oct. 30, 1925, Snelling finally sent 2000-2001 to Nicollet where it stayed permanently; Duluth returned 1525 and 1537 to Snelling, and Nicollet sent old 1068 and 1069 to Duluth to round off the exchange.

Jan. 25, 1926, North Side train 1604-204, temporarily at Lake St., was transferred to Nicollet; and Lake's 1609-209 also went to Nicollet.

Following was probably all just a typographical error, but will be recorded here: the 10-26-26 assignment list recorded some trailers of the 200 type as having GE200 motors; no ~~km~~ other list was ever found showing these trailers with motors; they were 204 and 209 at Nicollet at the time, but recently at Lake (why was 1604-204 the N.S. train temporarily sent to Lake?); 206 at East Side, in the only train at East Side (former N.S. train); and 220-222 at Lake St.

TRAIN ASSIGNMENTS: OCT. 26, 1926: AND SAME ON FEB. 15, 1928

1 train	East Side:	1606-206
17 trains	Nicollet:	1604-204; 1609-209; 1611-211 to 1619-219; 1623-223 to 1625-225; 2000-2001; *2002-2003 & 2004-2005* (2 trains or 4 cars)
7 trains	North Side:	1600-200 to 1603-203; 1605-205; 1607-207 to 1608-208.
4 trains	Lake St:	1610-210; 1620-220 to 1622-222.

In 1928 Nicollet's trains 2000-2001, 2002-2003, 2004-2005 were rebuilt to run as single cars only, and standardized with the new light cars 2006-2030.

On Nov. 21, 1929, East Side's only train, 1606-206, was transferred to North Side.

Perhaps some trains were disconnected during the summer-time and the motor cars used alone, or perhaps some entire trains were stored in the summer during the late 1920s. No actual notes on such activities are found until those for the summer of 1930.

1930 TRAIN NOTES.

TRAINS DISCONNECTED FOR SUMMER. These trains ~~were selec~~ seem to have been selected haphazardly. The following motor cars were running by themselves by May 10, 1930:

North Side's 1600 and 1607.
Nicollet's 1604, 1611-1612, 1615-1618, 1624-1625.
Lake's 1620-1622.

It is assumed that by this date Lake transferred 1610-210 to Nicollet, where it appears on all later records.

THIS LEAVES 12 O.K. TRAINS MAY 10, 1930, for the summer:

6 trains at North Side: 1601-201
1602-202, stored as~~x~~ a train by July 2
1603-203
1605-205
1606-206
1608-208--trailer with cross seats
6 trains at Nicollet: 1609-209
1610-210--trailer with cross seats
1613-213
1614-214
1619-219
1623-223

The following ~~proposal~~ proposal of May 10 was NOT carried out: that there be 12 "permanent trains", 1600-200 to 1605-205 at North Side, and 1606-206 to 1611-211 at Nicollet; and that 1612-212 to 1621-221 be connected on November 1st, assigned as needed for the winter, and disconnected on April 1st.

This part of the May 10 proposals WERE DONE; ~~1623~~ 1622-222 to 1625-225, 4 trains, were permanently disconnected. (1623-223 were apparently used in the summer, disconnected by winter; the other three sets were never connected again).

In the summer and fall of 1930, cross seats were installed in trailers 200-207; they had been put in 208 and 210 the previous year. This was part of the idea that these were part of permanent trains.

DEC. 5, 1930 TRANSFER! TO HAVE ALL TRAILERS WITH CROSS SEATS AT NICOLLET: 1600-200 to 1603-203, 1605-205 to 1608-208 North Side to Nicollet; 1612-212 to 1619-219, Nicollet to North Side.

Some of these 1600s which had run as motors only in the summer, had been transferred to other stations, but were returned to original stations for train service. Motors 1620 and 1621 went back from North Side to Lake St., probably to be trains; 1622 was similarly returned, but probably not connected.

TRAIN ASSIGNMENTS, JAN. 5, 1931

12 trains at Nicollet: 1600-200 to 1611-211
8 trains at No. Side: 1612-212 to 1619-219
2 trains at Lake St: 1620-220 to 1621-221 (assumed)
TRAILERS STORED: Lake St: 222 (assumed not used)
Nicollet: 223-225

TRAINS DISCONNECTED, April 1, 1931: North Side's 1612-212 to 1619-219, ~~12~~ 8 trains. These were likely never trains again. To give North Side some trains, Nicollet sent over 1607-207 to 1611-211. The North Side motor cars 1612-1619 went to Nicollet; by winter, 1612-1615 returned to North Side, and could have been connected, but it is assumed they were not.
----As only record of disconnecting trains in 1931 is of above 8 trains, the status of those at Lake St. is doubtful. Perhaps 1620-220 and1621-221 were not trains the previous winter; it will be assumed that they were, however, both previous and next winters.

TRAIN ASSIGNMENTS, DEC. 31, 1931

7 trains at Nicollet: 1600-200 to 1606-206
5 trains at No. Side: 1607-207 to 1611-211
2 trains at Lake St: 1620-220 to 1621-221 (assumed)
TRAILERS STORED: North Side: 212-215 (Could have been used)
North Side: 216-219 (not used for sure)
Lake St. 222 (assumed)
Nicollet: 223-225

FOR THE FOLLOWING WINTER, 1932-1933, THE TRAIN ASSIGNMENT IS THE SAME AS ABOVE, except that Nicollet had transferred 1601-201 to North Side, so those stations had 6 trains each.

THREE N.S. TRAINS WERE TRANSFERRED TO NICOLLET in early 1933: 1601-201, 1608-208, 1610-210.
1933 photos show trains 1607-207 and 1609-209 at North Side.

IN THE SPRING OF 1933 ALL THE TRAINS WERE DISCONNECTED FOREVER. For further use of the motor cars, see Front Exit car section, and One-Man Cars. The trailers were left stored whereever they had last run as trains; their locations Jan. 1, 1934 were:
Nicollet: 200-206, 208, 210, 223-225.
Nobth Side: 207, 209, 211-219.
Lake St: 220-222.

Trailer 225 was damaged Nov. 19, 1933, in the fire at Nicollet Station in which 1006 was destroyed. The company scrapped it on Feb. 28, 1935. The other 25 trailers were sold for scrap in 1936.

SUBURBAN CARS

AVERY®c PV119E

PART VIII. SUBURBAN CARS was written during 1954-1955 by Ed Nelson. Additional information has been obtained since then which improves page 1.

The St.Paul & White Bear Railroad acquired cars number 1-8 from Pullman's Palace Car Co. during 1892. All were acquired by TCRT with the purchase of the railroad in 1899. The cars were subsequently rebuilt to TCRT standards and re-numbered 789-796. Thereafter all were used in service only on local lines.

When the extension from Wildwood to Stillwater was completed August, 1899, the St.PAUL & STILLWATER line opened August 23rd apparently using cars 752-758 with their existing equipment. On August 28th "new" cars with GE 57 motors and air brakes were tried which gave better satisfaction. The Mechanical Dept. drawings dated in 1899 and 1901 (see Notebook 13) do not provide equipment numbers. Apparently the seven Stillwater cars mentioned in 1902 were 779-785. By April, 1905, 773-778 had been added as these were specifically identified as Stillwater cars when the rear platforms were being rebuilt. All 13 cars had GE 57 motors and K-14 controllers. Apparently these cars were assigned to E. 7th St. Station.

Cars 1112-1123 were specifically built for the LAKE MINNETONKA line during August, 1905, with GE 73 motors and Type M control. They were most likely assigned to East Side Station.

Car[redacted] 1145 was the experimental enclosed double-deck car for the Lake Minnetonka line built in May 1906. We know that it did have Type M control and probably had GE 73 motors from the beginning. Fifty additional cars, 1164-1195, intended for double-decking were built from May thru August 1906. All fifty cars had GE 87 motors (60 h.p.) with Type M control. ([redacted] 1160 was used as a double-deck car (unenclosed upper deck) during the summer of 1906.) Photographs exist of cars 1188 and 1194 in service on the SELBY-LAKE line with this equipment. This line was operated from Snelling Station at that time.

New cars 1260-1265 when built in June, 1907, were equipped with GE 73 motors and Type M control. Apparently these were for the LAKE MINNETONKA line and assigned to East Side Station.

The GE 87 motors proved unsatisfactory. were dismounted, returned to GE and truck changes made, during June thru November, 1909. Apparently some of the Type M controls were also returned. New GE 73 and GE 216 motors were purchased during July and August 1909. 1145-1163 received GE 73 motors with Type M control; apparently for both the St.PAUL & STILLWATER and LAKE MINNETONKA lines. 1164-1195 GE 216 motors with K-37 controllers and remained assigned to Snelling Station.

At this time during 1909, 773-774 were removed from STILLWATER line service and re-equipped with GE 67 motors and K-6 controllers. During August, 1909, 775-785 had the K-14 controllers replaced with K-37 controllers which equipment appears on a 1909 truck and motor list.. On page 1 of PART I. THE STANDARDS: SLOW CARS Ed Nelson reports that 775-777 lost their GE 57 motors in September, 1909, but I am not sure this is correct.

We know that on February 25, 1910 1263-1265 were transferred temporarily from East Side to E. 7th St. Supposedly at this date 775-778 were removed from STILLWATER line service and re-equipped with GE 67 motors and K-6 controllers.

We have not learned when 779-785 were removed from STILLWATER line service. 779-780 sometime prior to May, 1916, received GE 67 motors with K-6 controllers. 782-785 were sold in May, 1913, still with GE 57 motors and K-37 controllers, but had been used only in local service. 781 retained its GE 57 motors and K-37 controller and still had them as of January 1, 1920, apparently used only in local service.

SEPTEMBER, 1910. Preparing for the winter: High-speed GE73 motors to be borrowed from some cars for the snow plows, and replaced by GE216 motors; most slowed cars to go to East Side, and "local signs" to be placed in those cars. The plans made at this time included putting "local signs" in 1143-1144.

EAST SIDE	SUMMER	1112-1123	fast	WINTER	1112-1123	fast
		1143-1144	slow		1143-1144	slow
		1145-1148	fast		1145-1154	slow
		1260-1265	fast			
7TH ST.	SUMMER	1149-1163	fast	WINTER	1155	slow
					1156-1163	fast
					1260-1265	fast

(PREVIOUS WINTER CAR LIST: Nov. 16, 1909;
cars NOT separated here between fast and slow cars:
EAST SIDE 1112-1114, 1116-1123, 1149, 1155-1157, 1159,1161,1263-1265
7TH ST. 1115, 1145-1148, 1150-1154, 1158, 1160, 1162-1163,1260-1262

Jan. 26, 1911. Brake leverage was to be changed on East Side's 1118-1123. They were to be used on local work for the balance of the winter.

MAY, 1911, RETURN TO REGULAR ASSIGNMENT:
EAST SIDE 1112-1123, 1145-1154
7TH ST. 1155-1163, 1260-1265. This was obviously NOT the previous regular assignment, as 1200s were previously East Side.

SLOWED FOR WINTER, 1911-1912: E.S. 1150-1154, 7TH ST. 1155-1160.

JAN. 1, 1912 TRANSFER: E.S. to 7TH: fast 1112-1118.
7TH to E.S.: slow 1155-1160, fast 1161.
MAY 27, 1912 TRANSFER: E.S. to 7TH: fast 1119-1121 (giving Stillwater line increased number of cars from now on).

Car transfers were unnecessary in the following winter: 1912-1913:

EAST SIDE	SUMMER	1122-1123	fast	WINTER	1122-1123	fast
		1145-1161	fast		1145-1149	fast
					1150-1160	slow
					1161	fast
7TH ST.	SUMMER	1112-1121	fast	WINTER	1112-1121	fast
		1162-1163	fast		1162-1163	fast
		1260-1265	fast		1260-1265	fast

(At this time company had ten large snow plows needing GE73 motors).

It is obvious they wanted Stillwater to keep all its fast cars through the winter, but that Tonka could do with less. What we need is a reason why it was the 1150s which were always selected for slowing down. Granting that they should be the slow cars in the winter, there is the real reason why Tonka got that group of cars.

7-31-12 note. New line signs "KENWOOD & JOHNSON" placed in 1149-1158, as well as in city cars. By having Kenwood line signs on Tonka cars, and Rondo signs on Stillwater suburban sign rolls, it was generally unnecessary to change signs in the cars which went into local service in the winter.

CITY CARS ON SUBURBAN LINES. In the summer, many city cars had to be used. Most of the time, GE-200 type cars were selected. For notes on some of those cars used for Tonka or Stillwater, see "Fast Standards" and "Front Exit Cars" sections. Those city cars running on any part of the Stillwater line had to have flag brackets for the single track operation. During some early years, Snelling Station ran some of these extras. In Minneapolis, all stations for some years had "LAKE MINNETONKA" signs on all cars with GE200-type motors. These did not need flag brackets, as they usually ran "Excelsior Limited". Regular fast cars were always used on the single track runs to Deephaven or Tonka Bay.

NEW SUBURBAN CARS. In March, 1914, Lake St's 1255 and Snelling's 1256-1259 were equipped with GE73 motors and type "M" control. On March 26, 1255-1256 were sent to East Side, and 1257-1259 to Duluth. Duluth sent 973-975 to Snelling as a consolation.

TRANSFER, date unknown; before July 1915:
1255-1256, East Side to 7th.
1162-1163, 7th to East Side.

JAN. 1, 1916 ASSIGNMENT: East Side 1122-1123, 1145-1163
7th St. 1112-1121, 1255-1265

April 27, 1917 note: E.S. sent 1147 1157 1158 1163 to Duluth, to facilitate painting of Stillwater cars; all four returned to East Side, May 28, 1917.

In 1920, Duluth lost two of its suburban cars: 1258 burned in the station yard on Feb. 26, and was dismantled March 3;; 1114 was wrecked for good on April 11, when it ran off the tracks and into a ditch on E. 7th St.

Probably to replace these, East Side sent 1122 and 1123 to Duluth that summer.

In late 1920 or 1921, the company began keeping one or two of the high-speed cars at Owen St. Station. 1261 was there early in 1921, but the regulars at Owen soon were 1264 and 1265. These cars were NOT licensed for St. Paul thereafter (1922 on) while they stayed at Owen St; in contrast, all the high-speeds at Duluth always had St. Paul licenses. Did these ever run on South Stillwater? Or did Owen St. operate the White Bear-Mahtomedi shuttle? Or was it OK for these to run to St. Paul without a license?

1122 and 1123 stayed at Duluth until at least late 1921; sometime between then and early 1923, they went back to East Side. Whether that was intended as permanent is unknown, but anyhow they landed on the permanent East Side assignment in May, 1923.

MAY 30, 1923 ASSIGNMENT

East Side:	1122-1123 1145-1163
Duluth:	1112-1113 1115-1121 1255-1257 1259-1263
Owen St:	1264-1265

Car 1114, wrecked in 1920, was not removed from company assignment lists until 10-26-26. For several years , it is recorded that licenses were bought for it. Company car records have nothing on it after the 1920 "wrecked" date; and other information is that it was scrapped right away in 1920.

~~5-27-25~~
MAY 1925. About the time Owen St. got its new little # 1- # 4, they sent 1265 to Duluth, and thereafter kept only one ~~fa~~ high speed car. However, 1265 was the one they usually kept there.

5-27-25 TRANSFER: 1122-1123 E.S. to Dul (& FE 1331-1332 Dul to E.S.)

10-22-25 TRANSFER: 1122-1123 Dul to E.S. (& FE 1331-1332 E.S. to Dul)

(Above type of trading probably due to very large number of E.S. cars made slow during winters).

10-27-25:TRANSFER: 1120-1121 Dul to E.S.; 1162-1163 E.S. to Dul (slow?

By Oct., 1925, 1265 assigned regular at Owen, 1264 regular at Duluth.

TRANSFERS:	4-29-26	1162-1163	Dul to E.S.
	5-11-26	1120-1123	E.S. to Dul.
	5-24-26	(FE~~k~~ 1331-1332	Dul to E.S.)

(Through all assignment lists at this time, 1122-1123 "belong" to E.S.)

TRANSFERS:	10-13-26	1122-1123	Dul. to E.S.
		(1331-1332	E.S. to Dul.)
	11-17-26	1120-1121	Dul. to E.S.
		1162-1163	E.S. to Dul.

TRANSFERS:	5-19-27:	1120-1123	E.S. to Dul.
		1162-1163	Dul. to E.S.
		(1331-1332	Dul. to E.S.)
	(6- 7-27)	(1331-1332	E.S. to N.S. ~~xnix~~ see front exits)
	9-17-27	(1331-1332	N.S. to Dul)
		1162-1163	E.S. to Dul
		1120-1123	Dul to E.S.

NOTE OF JAN. 3, 1927: Can NOT use fare boxes in 1153 1154 1158 1161, cars used on Tonka and Campus. Many Tonka cars probably used on Cmapus at various times, but with GE216 motors; see Campus under general line notes.

TRANSFERS: 5-24-28: 1120-1123 E.S. to Dul.
1162-1163 Dul to E.S.
(1331-1332 Dul to E.S.)

6-11-28: Temporary transfer: 1150 1151 1163, E.S. to Duluth; all 3 returned to E.S., 6-22-28.

9-20-28: 1120-1123 Dul. to E.S.
1158-1159 E.S. to Dul.
(Note 1331-1332 now dropped from this round of transfers, permanently at East Side after big re-assignment of front exit cars).

DECEMBER 31, 1928 ASSIGNMENT. (Many slow).

East Side: 1120-1121 (belong to Dul.)
1122-1123
1145-1157
1160-1163
Duluth: 1112-1113
1115-1119
1158-1159 (belong to ~~Dul.~~ E.S.)
1255-1257
1259-1264
Owen St: 1265

TRANSFERS: 5- 2-29: 1120-1123 E.S. to Dul.
1158-1159 Dul. to E.S.

10- 7-29: 1120-1123 Dul. to E.S.
1158-1159 E.S. to Dul.

MAY 13, 1930 PROPOSALS. Fast Cars for Summer, 1930.
East Side needed 12 & 2 spares, total 14 cars.
Duluth needed 8 & 2 spares, total 10 cars.
Proposed: dismount snow plow # 82, use trucks to make 1146 fast; dismount snow plow # 37, use trucks for spares. TRANSFER 1262-1265, Duluth to East Side. (OWEN ST. loses its fast car now).

14 CARS EAST SIDE:	1145-1146	gear ratio	24:51	
	1160-1163	" "	24:51	
	1122-1123	" "	~~21:51~~	21:54
	1120-1121	" "	21:54	
	1262-1265	" "	21:54	
10 CARS DULUTH:	1112-1113	" "	21:54	
	1115-1119	" "	21:54	
	1257	" "	21:54	
	1260-1261	" "	21:54	

Therefore these remained slow during the summer: E.S. 1147-1157, some probably on Campus; 1158-1159 Dul. or E.S.; 1255-1256, 1259 Duluth.

NOV. 7, 1930 FAST CAR ROSTER

13 cars, East Side:	1120-1123 1145 1160-1163 1262-1265
10 cars, Duluth:	1112-1113 1115-1119 1257 1260-1261

Thus these were slow: 1146, East Side, again made slow for winter; East Side ~~1157 1147 1147~~ 1147-1157; 1158-1159 probably still at Duluth; 1255-1256, 1259 Duluth.

At that date, it was planned to equip 20 of above 23 fast cars with new axles; cars including 1262-1265. Therefore East Side sent 1262-1263 back to Duluth, in order to have 10 cars with new axles at each station.

The slowed cars at this time were probably all in use, some on Campus. A note of late 1930 mentioned 1148 on "Hopkins" line; just how this was scheduled is unknown.

MINOR EQUIPMENT NOTES

Chinch window wipers and "one-piece" front windows installed in these 26 suburban cars in 1928-1929:
1112-1113, 1115-1123, 1145, 1160-1163, 1255-1257, 1259-1265.
Same installed 1932 in 1146-1149 for Campus.

1930-1931, small sliding "ventilating window" installed in lower panel of mirror window in these 27 suburban cars:
1112-1113, 1115-1123, 1145-1146, 1160-1163, 1255-1257, 1259-1265.

1930, auxiliary air reservoir for whistle air supply installed in 24 suburban cars:
1112-1113, 1115-1123, 1145-1146, 1160-1163, 1257, 1260-1264.

1931, Westinghouse pneuphonic horns installed in same 24 cars.

These equipment notes indicate that by this time, first 1147-1159 ~~1148 1159~~ and then 1255-1256 and 1259, were gone from the regular suburban service; they probably never had fast motors after late 1920s.

JAN. 5, 1931 ASSIGNMENT

Regular fast suburbans			In lesser service		
East Side	1120-1121	"belong" Dul	East Side	1146	
	1122-1123			1147-1157	
	1145		Duluth	1158-1159	"belong" to E.S.
	1160-1163			1255-1256	
	1264-1265	"belong" Dul		1259	
Duluth	1112-1113				
	1115-1119				
	1257				
	1260-1263				

DEC. 31, 1931: actual car locations same as Jan. 5, 1931.

MAY 4, 1932: Because East Side was too crowded, 1150-1155, with GE70 motors according to records, were transferred to Lake St. for storage.

THE LAKE MINNETONKA AND STILLWATER LINES WERE ABANDONED AUGUST 11, 1932. The fast cars, as such, had only a bit of rush hour service left ahead of them.

1146-1149 had become regular Campus cars; 1160 and 1265 were spares for Campus about this time.

By the end of the year, Duluth sent slow 1158-1159, 1255-1256, 1259 to Snelling for storage.

FAST CARS WERE STILL TO BE USED ON RANDOLPH-MAHTOMEDI DURING THE RUSH HOURS. Schedules called for six cars to be used; for this, eight were to be equipped with fare boxes for Pay Enter and Pay Leave operation. The intention was to equip 1257 and 1259-1265, but as some of these were at East Side, and some had slow motors, these eight were actually made PAYE cars in September, 1932:

1116 1117 1119 1257 1260 1261 1262 1263. Notes at end of year indicate 1257 by then had GE70 motors, perhaps temporarily if so.

DEC. 31, 1932 ASSIGNMENT

Duluth, in use, Mahtomedi: GE70: 1257;
GE73: 1116-1117, 1119, 1260-1263.
Duluth, not used, not licensed: GE73: 1112-1113, 1115, 1118.
East Side, not used: GE73: 1120-1123, 1145, 1161-1163, 1264.
GE70: 1156-1157.
East Side, in use, Campus: GE216: 1146-1149, 1160, 1265.
Snelling, storage, GE70: 1158-1159, 1255-1256, 1259.
Lake St., storage, GE70: 1150-1155.
(Possibly some GE70s were used for pullouts on regular lines?)

By Jan. 3, 1933, Duluth's 1112 1115 1118 were at Snelling for storage. 1113 was put into service on Mahtomedi and ran there for some time; perhaps it was a replacement for 1257 for a while. At the end of 1933, Duluth's 1257 was listed at the "shops", with GE70 motors; later again it appears at Duluth, with GE73s, in use.

In the summer of 1934, 1113 1116 1117 1119 had gone out of service for good, and were sent to Snelling; five high speed cars remained running at Duluth: 1257, 1260-1263.

DEC. 22, 1934 ASSIGNMENT

In Service
Duluth, GE73: 1257
1260-1263
East Side, GE216: 1146-1149
1160
1265

Out of Service
East Side: GE73: 1120-1123
1145
1161-1163
1264
GE70; 1156-1157
Lake St: GE70: 1150-1155
Snelling: GE73: 1112-1113
1115-1119
GE70: 1158-1159
1255-1256
1259

REMOVED FROM SERVICE DURING 1935:

Duluth's 1257, 1260-1263.

East Side's 1160, 1265.

This left Campus cars 1146-1149 as the last of the 42 suburban cars in service.

Following the scrapping of 173 old storage cars in 1936, 12 old suburban cars were moved from East Side to North Side for storage: 1120-1123, 1145, 1156-1157, 1161-1163, 1264-1265. These cars just filled up 18 track, and stood there several years. Prior to the above moving, before July 1, 1160 was moved from East Side to Snelling.

In 1938, front exits were put on the four cars on Campus; painting dates are shown here:

1146	4-27-38
1147	3- 8-38
1148	1-31-38
1149	1- 3-38

In June of 1938, 31 of the old suburban cars were scrapped: 1112-1113, 1115-1119, 1158-1160, 1255-1256, 1259 (13 from Snelling storage); 1120-1123, 1145, 1156-1157, 1161-1163, 1264-1265 (12 cars from North Side storage); 1150-1155 (6 cars from Lake St. storage).

They left the five cars standing at Duluth. In September of 1938, 1261 was rebuilt into rail grinder # 96. In April of 1939, the other four cars were burned.

Now all that were left were the Campus cars. 1149 got a "recoat" paint job Oct. 29, 1940.

1146 1147 1148 1149 were burned in October, 1941.

DOUBLE END CARS

PART IX. DOUBLE-END CARS

Double-end cars were used chiefly on "stub lines", single-track extensions to main lines; later, on short lines operated as shuttles for economy; and also as temporary shuttle cars when parts of lines were cut off for bridge repairs or sewer construction.

THE DINKIES. A number of 18-foot closed cars were converted to double-end in 1905, and some of these were the last single truck cars ever used in the Twin Cities. These included:

Laclede built:

358 (burned 10-27-08).

Northern built:

505 at 31st St. in 1909

509 at Snelling in 1909; it was the Fort Snelling dinky until 1912.

510 at 31st St. in 1909

513 at Snelling, in storage there, March, 1911

516 at 31st St. in 1909 and 1910

524 (burned [illegible] 4-24-12)

536 at 31st St. in 1909

538 at Snelling in 1909; it was Fort Snelling dinky at least to March, 1911, at which time they were looking for another, as 538's body was rickety.

1523 at 31st St. in 1909. Burned 6-29-11.

1529 Might have replaced 538 at Fort Snelling. On 3-20-12, number was changed to 529 when big new 1529 was built. 529 was burned in June, 1912.

1534 Was Camden Extension car in March, 1911. Burned 4-12-12.

1511 Was Owen St. Station double-end car in 1905. Later on Robbinsdale extension; burned up in Robbinsdale 10-7-07.

SOME TEMPORARY DOUBLE-END CARS

890 In Feb., 1911, was temporary Oak St. shuttle.

893 In August, 1913, temporary St. Louis Park shuttle; probably Stillwater dummy that year. During Fair Week, for many years, a double-end car was sent to Stillwater to give added service on the South Stillwater line.

894 June 30, 1914, temporary Prior Ave. shuttle for a short while.

992 & 993 To double-end Nov., 1912, with new fast GE203 motors. For new E. 25th St. line from Minnehaha and Cedar to 25th St. and 36th Ave.
--992 temporary Camden shuttle in July, 1914, and St. Louis Park shuttle in Sept., 1914.
--993 to East Side for Robbinsdale shuttle.
--992 and 993 both returned to single end, Nov. 1914.

TWO-MAN DOUBLE END CARS.

897, 898, 899 were made double-end in July, 1910, for East Side to run on the Robbinsdale and Camden extensions. In exchange for them, East Side sent 874-876 to 7th St. (At first the 800s apparently went to 31st St., until the lines were transferred Nov. 14, 1910.) (Note 1534 on Camden extension in March, 1911, perhaps spare car).

813 was probably converted in Nov. 1911; on Nov. 8, a single track line was ~~opened~~ opened on 18th Av. N.E. from Central to Johnson, and on Johnson to 28th Av. N.E. 813 ran out of East Side. This line part of through Johnson St. line on 7-31-12.

896 was transferred from 7th to Snelling, and converted to double end 3-23-12, probably replacing the dinky at Fort Snelling. East Side transferred 813 to Snelling by 4-29-12.

East Side borrowed 993 for Robbinsdale in 1913, and 898 apparently went to Lake St. to replace it. ~~898 went to Lake~~

The Camden extension became part of a through line, 8-22-13.

899 went from East Side to Lake St. for new Cedar Ave. extension, opened 6-8-14. (898 to Lake St. permanently, 1913 or 1914).

897 went from East Side to 7th St. for Burns Ave. extension to Maria line, open 7-1-14.

Robbinsdale extension made part of through line, 10-31-14.

875 and 876 were converted to double-end for new Randolph extension from Snelling to Cleveland, in June, 1916. (The main line ran on E. 7th, Randolph, and north on Snelling Ave.)

Cedar Ave. extension became part of through line, Nov. 1, 1916. 898 transferred to Snelling short while, from there to Duluth. 899 sold to Cripple Creek Coal Co. of Illinois, 10-1-18.

Through runs probably took over Randolph extension on 10-15-17. In November, 875 and 876 transferred to Lake St. for storage. 876 returned to Snelling in 1918., 875 in 1919. (OR Randolph extension run to 6-8-21??)

Fort Snelling stub line was transferred from Snelling to Lake St. August 1, 1920. Probably started with new double-end car 847.

During 1920, 875 to Duluth; many temporary shuttle jobs: 813 Snelling to East Side; 876 Snelling to East Side to North Side; 898 Duluth to North Side to East Side; 897 Duluth to Snelling.

By 1921, 847 went to Snelling; 813 875 876 896 898 to Lake; 897 back to Duluth. Soon 896 and 898 followed to Duluth.

Rondo-Maria line took over Burns Ave. run Sept. 23, 1931.

As Fort Snelling stub got 1230 in 1933, 800s afterwards were maintained as spare cars only: 847 Snelling, 813 875 876 Lake, 898 Duluth. 896 and 897 were not maintained, but were scrapped in June 1936. The other five were kept up until scrapping in Oct., 1941.

ONE-MAN DOUBLE-END CARS.

1230 was converted to a one-man/two-man double-end car, Sept. 10, 1931, and sent to East Side to be run as a Deephaven shuttle car; through cars to Deephaven kept running Sundays and some rush hour trips. The Deephaven line was closed Aug. 11, 1932, and 1230 was sent to Snelling Station; it was still there at the end of 1932.

The Western-Jackson line was split and the Western Ave. shuttle was begun July 13, 1932, probably 2-man at first. It went one-man 9-9, 1932, starting out with car 1129, converted 9-7-32.

The Merriam Park line was made a one-man shuttle line, during mid-day hours only, Aug. 8, 1932. It may havebegun with car 1230, as there was wye at either end of line. # 3 was converted to one-man for Merriam Park, 9-16-32.

Shortly after this, 1129 became the regular Merriam Park car, # 3 went on Western Ave., and 1230 was sent to Lake St. for the Fort Snelling stub line.

Merriam Park line changed to buses 8-27-38.

4 was converted to double-end in Nov. 1939, as a spare for Fort Snelling. (1129 wouldn't do there, as Fort Snelling needed car with doors on one side of car only).

Western Ave. got buses 8-23-41.

3 got its last use in 1946 during sewer construction on Penn Ave. South; it shuttled from 50th to 54th.

1129 was scrapped 8-26-47, and # 3 on 6-23-49.

After abandonment of the Hopkins line, 1230 shuttled from City Limits to Brookside, August 4th to 7th, 1951, until the new loop at Brookside was completed.

The Fort Snelling stub line was changed to buses August 1, 1952. # 4 and 1230 were burned 11-21-52, and that was the end of double-end car operation in the Twin Cities.

1944 Consultant's Study

704 Passenger Cars:

1 - 4	4 cars
1129, 1136, 1166-1178, 1180-1201	37 cars
1203, 1205-1211, 1213-1230, 1233, 1235-1254	47 cars
1266-1609, 1611-1628, 1630-1673, 1675-1698	430 cars
1700-1854	155 cars
2000-2030	31 cars
	704 cars

89 Service Cars

3-11, 13-24, 26-33, 35-40, 43-89, 91-96 + side dump car at Main Steam Station acq. 1942

(UNNAMED DIVIDER)

Service Equipment Assignments 12-31-15

	Minneapolis	Snelling Shops & St. Paul	Minnetonka	Stillwater
Work Cars ⊛	7-9, 13-15, 18-19, 46-47, 54-56, 62, 65-67, A14	10, 12, 16-17, 51-53, 68-69 A13	–	11, 48
Snow Sweepers	23-24, 29-30	31, 32		
Snow Plows	22, 36	37	25	38
Wire Cars	3, 5, 33	4		
Baggage Car			34	
Sand Cars ⊛	44-45	43		
Cupola Cars	61	58		
Locomotive	20			
Wrecker Crane	21			
Crane Car		50		
Refuse Car	49			
Refuse Car Trailer	✓			
Shifters		26-28		
Rail Grinders	39	40		
Sand Blast Car	35			
Gondola Car	6			
Electric Shovels	57	60		
Sprinkler Car		59		
Private Car	✓			

⊛ 8, 9, 54, 55, 65 used as "wreckers"; also 45.
(all carried hose bridges also)

4-29-1912

ES: 3, 5, 24, 25, 29, 45
NIC: 32, 33, 34, Private Car
LS: 30, 36, 44
SN: 4, 21, 23, 31
E7S: 22, 37, 43
Owen: 38

Snow Plow Assignment

1914-1915

ES: 24, 25, 29
NIC: 32
LS: 36
NS: 30
SN: 23, 31
E7S: 22, 37
Owen: 38

After 1920

ES: 24, 76, 81 29 to 1932
NIC: 32, 77, 78
LS: 29, 36, 79 29 after 1932
NS: 30, 80
SN: 22, 31, 37, 82
DUL: 23, 75, 38 after 1932
Owen: 38 until 1932

MSA

1-1-16

Service Cars with Wrecking Tools, Hose Bridges, etc.

8
9
21
44 some
45 a lot
54 + track tools
55
65

Service Equipment Assignments (A. L. Drum)

12-31-1919

Description	Mpls	St Paul	Suburban
Wire Cars	3, 5	4, 72	
Work Cars	7-9, 13-15,	10-12, 16-17,	63-64
	18-19, 46-47,	48, 51-52,	
	53-54, 62,	55-56, 66	
	65, 67-69	A13	
	A14, 33, 49		
Snow Plows	22-24, 29-30	31-32, 75-77	37-38
	36, 78-82		
Baggage Car			34
Locomotive / Gondola	20, 6 (Main Steam Sta.)		
Wrecker	21		
Sand Cars	44-45	43	
Shifter Cars		26-28	
Cupola Cars	61	58	
Crane Car		50	
Sprinkler Car		59	
Supply Car		2	
Sand Blast Cars	35	70	
Electric Shovels	57, 73	60	
Yard Crane		74	
Rail Grinders	39	40	
Pavement Plow	71		
Quantity | Total 80 Cars	44 Cars	31 Cars	5 Cars

Passenger Cars 12-31-1919

Mpls 656 + St. Paul 367 + Suburban 26 = Total 1049 Cars

SOME WORK CAR STATION ASSIGNMENTS
(Ed Nelson in Interurbans Special no. 14)

3	University Substation/East Side 1930's-1954
4	Snelling 1912-1941; Duluth 1941-1952.
5	East Side 1912-1953.
8	Nicollet 1914-1930. (Wrecker for some winters.)
11	Stillwater Divsion, Owen St. to 1932; then Snelling.
12	Minnetonka Division, Nicollet to 1932. (Nicollet Sand Car winter 1920-1921.)
14	North Side (Sand Car winter 1920-1921); then Nicollet Sand Car and Wrecker to 1953.
16	Duluth Sand Car 1920-1952.
18	North Side Sand Car and Wrecker 1920's-1953.
19	Lake St. Wrecker.
21	Snelling to 1940's; then Nicollet.
22	Duluth 1911-1919; then Snelling.
23	Snelling 1911-1920; then Duluth.
24	East Side 1911-1953.
25	Stillwater Division, Owen St. to 1911; East Side 1911 until sold to MA&CR Ry. Owen St. Wrecker 5-9-1911; Owen St. Wire Car 9-20-1911; Snow Plow attached 11-1-1911 and transferred to East Side for St. Louis Park line.
26-27-28	Snelling Shops
29	East Side (Minnetonka Division) to 1932; Lake St. 1932-1953.
30	Bloomington to 1911; Lake St. 1911-1914; North Side 1914-1953.
31	Snelling to 1953.
32	Nicollet to 1953.
33	Nicollet (generally) to 1953.
34	East Side. (At Nicollet 1912).
35	Snelling. Shops.
36	Lake St. to1953. (Lake St. Wrecker during summers 1910-1914 at least.)
37	Duluth to 1920; then Snelling to 1953.
38	Stillwater Division, Owen St. to 1932; Duluth 1932-1952. (Duluth Wrecker summer 1914 or later.)
43	Duluth to 1920; then Snelling to 1954. (Sand and Wrecking Car 1914)
44	Lake St. to 1953. (Sand and Wrecking Car 1914)
45	East Side to 1954. (Sand and Wrecking Car 1914)
46	East Side to 1954.
47	Nicollet 1940's.
48	Track Dept. summers and Owen St. Wire Car winters to 1917 (replaced by 72); Owen St. winter Sand Car and summe Wrecker to 1932; North Side Wrecker 1932-1952.
50	Snelling Shops.
52	Some use as Duluth Wrecker around 1915.
56	Some use as a Wrecker 1915.
57,60,73	Snelling Shops.
62-69 were steel Work Cars; used mostly as Ash Cars.	
62	East Side Wrecker; Snelling Shops; Snelling Station 1934-1953.
63	North Side; then Snelling Shops (Foundry) 1934-1952.
64	Lake St. to 1934; then North Side to 1953.
65	Duluth to 1934: then Lake st. to 1953.
66	Nicollet to 1953.
67	Snelling Station to 1934; then Duluth to 1952.
68	East Side to 1953.
69	Snelling Shops Boiler Room to 1953.
72	Owen St. to 1932; Duluth 1932-1941; Snelling thereafter to 1954.
74	Snelling Shops.
75	East Side to 1919; Duluth 1919-1952;Snelling 1952-1954.
76	East Side to 1954.
77	Nicollet to 1953.

78	Nicollet to 1953.
79	Lake St. to 1953; East Side fall 1953 to 1954.
80	North Side to 1953.
81	Snelling to 1919; East Side 1919-1954.
82	Snelling to 1953.
83	Snelling.Shops.
94	Snelling. Shops.
95	Snelling Storehouse.
96	NIcollet and Snelling.
97	Snelling Storehouse.

CAR LINE REVIEW

PART X. CAR LINE REVIEW.

EAST SIDE STATION.

LAKE MINNETONKA, 1909 to 8-11-32. See suburban cars.
---Extra service run from other stations also, GE200 type cars.
---Note double-end Deephaven shuttle, 1230, 1931-1932.

HOPKINS line, separate runs in early years.

OAK & HARRIET, 1909-1952.
One-man owl 12-1-31; nights about 1939; all 1-man 10-31-49.

COMO locals, to 1910.
COMO-HARRIET INTERURBAN, COMO-HARRIET-HOPKINS, 1910-1952.
One-man owl 11-10-34; nights 5-28-50; mid-day 11-20-50.

COMO-OAK-HARRIET, 1952-1954.
Limited two-man work for old conductors.
See all standard cars, and PCCs 1952-1953.

8TH & CENTRAL, 1909-1910.
8TH AV. S. & 20TH AV. N., and 8TH AV. S. & EMERSON, 6-25-10 to 11-5-10.
Signs placed in 65 cars, 1124 and above.
8TH AV. S. & 20TH AV. N., pullouts run from Lake St., summer 1913 to March 1914, with Lake St. cars from 994 to 1124.
CHICAGO-PENN-FREMONT, some winter pullouts, 1939-1940; cars 1339-1341.

MINNEHAHA FALLS (locals), 1909 to 11-5-10.

WESTERN & 2ND ST. N.E., 1909 to 7-1-19.
GLENWOOD-4TH AV. S., 7-11-53 to 3-6-54. One-man; PCCs to 11-28-53.

KENWOOD & 8TH ST. S.E., 1909 to 7-31-12.
JOHNSON ST., single-track line, 11-8-11 to 7-31-12. Car 813?
KENWOOD & JOHNSON, 7-31-12 to 9-1-18.
Signs first put in 817-826, 1149-1158, 1321-1330.
Kenwood line always used slowed suburban cars from 1146-1160.
KENWOOD-E. 25TH, 9-1-18 to 12-1-20.
KENWOOD, 12-1-20 to 10-20-21.
Part of KENWOOD-E. 25TH, 10-20-21 to 8-27-38. One-man nights 12-1-31;
Part of E. 25TH ST., 8-27-38 to 6-15-39. mid 2-15-32;all 6-19-33.
Part of 6TH AV. N.-E. 25TH, 6-15-39 to 5-25-40.
Part of E. 25TH ST., 5-25-40 to 2-16-46.
Part of PLYMOUTH-E. 25TH ST., 2-16-46 to 11-28-53.

MONROE & BRYANT, 1909 to 5-5-12.

A little of GRAND & JOHNSON, 7-1-19 to 10-18-20. Slow cars.
Part of BRYANT-JOHNSON, 10-18-20 to 11-28-53.
One-man Sundays 6-26-32, nights & mid 5-19-33, all 7-2-34.
See standard cars, and PCCs 1947-1953.

"EXTRA" SERVICE, INTERURBAN LINE, to 11-28-53, extra trips to City Limits, and also fillins over entire line.

EAST SIDE STATION.

N. W. TERMINAL, 10-28-20 to 8-3-21.

Part of GRAND-MONROE, 10-18-20 to 10-18-52.
One-man nights and mid 3-16-32, all 7-9-34.
See standard cars, 2000s, and PCCs 1949-1952.
Part of NICOLLET-2ND ST. N.E.-MONROE 10-18-52 to 11-28-53
See one-man cars and PCCs with Nicollet signs.
All of NICOLLET-2ND ST. N.E.-MONROE, 11-28-53 to 3-27-54.
Cars with Nicollet signs.

Part of BLOOMINGTON-COL. HTS., 7-1-19 to 2-21-53.
One-man nights 12-1-31, mid 5-16-32, all 7-3-33.
See standards cars, and PCCs 1949-1953.

CAMDEN EXTENSION, 11-14-10 to 8-22-13. Double end cars, 897-899.

ROBBINSDALE EXTENSION, 11-14-10 to 10-31-14. Double end 897-899, 993.

ST. LOUIS PARK, 1909 to 10-31-14.
Cars required class lamps and/or target brackets.
760-763 equipped 10-5-10.
Cars in 1912: 760-764, 827-832, new cars 1539-1541.
(LAKE ST. during some years ran some CALHOUN BEACH extras.)
Cars in 1913: 910-914, 1539-1541.
ROBBINSDALE-ST. LOUIS PARK, 10-31-14 to early 1920.
Cars in 1916: 814-816, 911-913, 1538-1544.
ST. LOUIS PARK, 12-1-20 to 8-27-38.
Regular cars to 1928, 1367-1374; also Campus cars 1185-1192.
One-man nights 12-1-31, mid 2-15-32, all 11-21-32.
Used one-man cars from large number equipped with red fare box.

PART OF- ROBBINSDALE-FRANKLIN, 5-18-35 to 11-29-40.
One-man. Used cars with red open-top fare box.
Cars 1935-1936: 1482 1488 1817 1819 1850
Cars 1937-1940: 1186-1191. (Other cars used temporarily).

BROADWAY & 20TH AV. N., 6-27-14 to 10-25-14. Cars 1031-1036.

BRYN MAWR, 1909 to 6-29-39.
Cars in 1909: 874-879.
July 1910 to about 1920: 877-879.
About 1920 to 1930: 985-991.
All one-man 8-10-30. Used 2000s; also cars 1, 2, 4, 1935-1939.

INTER CAMPUS SPECIAL, 11-4-14 to 1954.
1914 to 1919, usually six cars equipped from 1321-1334 group.
1919, for several years, cars 1079-1084, also slow Tonka cars.
By 1923, cars 1189-1194; 10-9-25, 1185-1192.
By about 1930, ran mostly slow Tonka cars.
1146-1149 regulars to 1941.
1345-1348 regulars 1941-1947; 1329-1330 added during war.
1266-1269 regulars 1947-1953; also the 1300s, replaced by 1270-1271 about 1949.
1301-1304 regular in late 1953, with remaining gatecars.
1300-1304, and 1269, regular in 1954.

31ST ST. STATION; rebuilt & renamed NICOLLET STATION in 1911.

ROBBINSDALE EXTENSION, 1909 to 11-14-10.
(Was extension of this station's 20th Av. N. line).
Used double end dinkies to July 1910; then 897-899.

CAMDEN EXTENSION, 1909 to 11-14-10.
(Was extension of this station's Camden line).
Used double end dinkies to July 1910; then 897-899.

WASHBURN PARK & CAMDEN, and 1ST AV. S. & 20TH AV. N., 1909 to 6-25-10.
WASHBURN PARK & COL. HTS. (and short line 1ST AV. S. & CENTRAL), later renamed NICOLLET & COL. HTS., 6-25-10 to 1-16-19.
NICOLLET AVE., 1-16-19 to 7-1-19.
NICOLLET-2ND ST. N.E., 7-1-19 to 8-3-21.
NICOLLET-2ND ST. N.E.-N.W. TERMINAL, 8-3-21 to 1-10-48.
One-man owls 6-1-32, nights and Sundays 5-1-33, ~~[illegible]~~
NICOLLET-2ND ST. N.E., 1-10-48 to 10-18-52.
All one-man 7-30-49.
Most of NICOLLET-2ND ST. N.E.-MONROE, 10-18-52 to 7-11-53.
See standard cars, and PCCs 1949-1953.
PArt of service transferred to Lake St., 4-29-53.

~~GRAND & JOHNSON~~
LYNDALE & GRAND, 1909 to 6-25-10.
1ST AV. S. & GRAND, 6-25-10 to 9-1-18.
GRAND & JOHNSON, 9-1-18 to 7-1-19.
Most of GRAND & JOHNSON, 7-1-19 to 10-18-20.
Part of GRAND-MONROE, 10-18-20 to 10-18-52.
One-man nights and mid 3-16-32, all 7-9-34.
See standard cars, and 2000s, and PCCs 1949-1952.
8TH AV. S. & 20TH AVE. N. pullouts.
6-25-10, signs placed in 12 cars for pullouts.
Ran pullouts for Lake St., summer 1913 to March 1914, with Lake St. cars from 994 to 1124, due to Lake St. crew shortage.

LAKE ST. ~~[illegible]~~ (locals), 1909 to 6-27-10.
SELBY-LAKE INTERURBAN, 6-27-10 to 11-5-10.

MONROE & BRYANT, 5-5-12 to 10-18-20.
Part of BRYANT-JOHNSON, 10-18-20 to ~~[illegible]~~ 7-11-53.
One-man owls 6-1-32, Sundays 6-26-32, nights & mid 5-19-33, all 7-2-34
Part of service transferred to Lake St. 2-21-53, 4-18-53, 7-11-53.
See standard cars, and PCCs 1947-1953.

4TH AV. S. & 6TH AV. N., 1909 to 11-4-18.
4TH AV. S., 11-4-18 to 7-1-19.
WESTERN-4TH AV. S., 7-1-19 to 1927; renamed
GLENWOOD-4TH AV. S., 1927 to 7-11-53.
One-man nights 11-3-31, mid 5-16-32, all 4-23-34.
See standard cars, trains, and PCCs 1947-1953.

"EXTRA" SERVICE OUT OF NICOLLET STATION

LAKE MINNETONKA, some Sundays, holidays, special events
FAIR GROUNDS, every year during Minnesota State Fair
INTERURBAN, extra trips to City Limits; none after World War II
LAKE ST., extras to 36th & Lake for special events

BLOOMINGTON STATION.

PLYMOUTH & BLOOMINGTON, 1909 to 1-1-11.

CEDAR & EMERSON, 1909 to 6-25-10.
CEDAR & CAMDEN, 6-25-10 to 1-1-11.

LAKE ST. STATION. Opened Nov. 5, 1910.

8TH AV. S. & 20TH AV. N., and 8TH AV. S. & EMERSON, 11-5-10 to 10-25-14.
CHICAGO AVE. line south of 29th St., from 5-4-15 until fall of 1915, during grade separation; this portion of line operated from Lake St. with North Side crews, and North Side cars 998-1002, 1179-1181.
CHICAGO-PENN-FREMONT, some winter pullouts:
winter 1940-1941, cars 1351 1369 1379 1445
winter 1941-1942, cars 1351 1416 1418 1455

Most of SELBY-LAKE INTERURBAN, 11-5-10 to 7-11-53.
1-MAN OWL 11-10-34, NIGHTS 12-30-50, MID IN 1951, ALL 4-4-52.
SNELLING-MINNEHAHA INTERURBAN, and MINNEHAHA FALLS LOCALS, 11-5-10 to 1-16-19.
SNELLING-MINNEHAHA INTERURBAN, and MINNEHAHA-PLYMOUTH, 1-16-19 to 10-20-21.
7TH-MINNEHAHA-PLYMOUTH (INTERURBAN), 10-20-21 to 9-11-32.
Included running to Hazel Park from 8-1-27 to 8-11-32.
Some runs probably out of Duluth Station from 8-1-27 on.
7TH-MINNEHAHA-HOPE (INTERURBAN), 9-11-32 to 7-5-36.
FORT SNELLING-MINNEHAHA-PLYMOUTH, 7-5-36 to 2-16-46.
One-man nights and mid, 7-6-36, all one-man Dec., 1938.
FORT SNELLING-MINNEHAHA, 2-16-46 to 8-19-50.
Most of FORT SNELLING-N. WASHINGTON, 8-19-50 to 4-18-53.
FORT SNELLING-MINNEHAHA, 4-18-53 to 11-28-53.

FORT SNELLING STUB, 8-1-20 to 8-1-52. Double end cars, one-man, no fares.
1920 to 1933, mostly cars 813, 875-876.
1933-1952, regular car 1230; 800s were spare cars until 1939, then # 4 was spare.

PLYMOUTH & BLOOMINGTON, 1-1-11 to 1-16-19.
BLOOMINGTON-COL. HTS., 1-16-19 to 7-1-19.
Part of BLOOMINGTON-COL. HTS., 7-1-19 to 2-21-53.
One-man nights 12-1-31, mid 5-16-32, all 7-3-33.

BLOOMINGTON AVE. trolley bus, 5-15-22 to 5-22-23.

FRANKLIN-11TH, 10-17-16 to 5-18-35.
All one-man 8-10-30; cars 1, 2, 4, and 2000s.

Part of BRYANT-JOHNSON, 2-21-53 to 11-28-53. One-man.

Part of NICOLLET-2ND ST. N.E.-MONROE, 4-29-53 to 11-28-53. One-man.

LAKE ST. STATION.

42ND AV. S., separate line south of Lake, 9-25-21 to 11-19-23.
E. 25TH ST., single track shuttle, 11-28-12 to 10-31-14.
    Double end cars; regular cars 992-993.
E. 25TH ST., through line to loop, 10-31-14 to 9-1-18.
Part of KENWOOD-E. 25TH, 10-20-21 to 8-27-38.
    One-man nights 12-1-31, mid 2-15-32, all 6-19-33.
Most of E. 25TH ST., 8-27-38 to 6-15-39.
Most of 6TH AV. N.-E. 25TH, 6-15-39 to 5-25-40.
Most of E. 25TH ST., 5-25-40 to 2-16-46.
Most of PLYMOUTH-E. 25TH, 2-16-46 to 11-28-53.

CEDAR & CAMDEN, 1-1-11 to 11-12-12.
28TH AV. S. & CAMDEN, 11-12-12 to 9-27-13.
LAKE NOKOMIS-CAMDEN, 9-27-13 to 10-25-14.
    Signs first placed in cars from 994 to 1420.
LAKE NOKOMIS line south of 29th St., from 5-1-16 to 9-21-16, during grade separation; this portion of line operated from Lake St. with North Side crews, and beginning with North Side cars 832-836, 900-902, 1190-1192, 1253-1254. The two 1200s were later replaced by 1188-1189. Cars 903-904 used after 9-11-16.
Part of LAKE NOKOMIS-CAMDEN, 7-1-19 to 11-28-26.
Part of 34TH AV. S.-N. BRYANT, 11-28-26 to 8-2-47.
    One-man nights and mid, 4-16-32, all 6-19-33.
Most of 34TH AV. S.-N. WASHINGTON, 8-2-47 to 8-19-50.
34TH AVE. SO., 8-19-50 to 4-18-53.
    See standard cars, and 2000s from late 1951 to early 1953.

CEDAR AVE., shuttle (35th to 42nd), 6-13-14 to 11-1-16.
    Double end cars, mostly 898-899.
CEDAR AVE., through line to loop, 11-1-16 to July 1918.
CEDAR AVE., (Lake St. to 42nd), July 1918 to 10-20-21.
Part of CEDAR-EMERSON, 10-20-21 to 11-28-26.
Part of 28TH AV. S.-N. EMERSON, 11-28-26 to 11-29-40. 1-man nights & mid,
Part of 28TH AV. S.-ROBBINSDALE, 11-29-40 to 7-10-48. /4-16-32, all 6-1-33.
    Included rush hour service on N. Emerson.
    Cars to Robbinsdale equipped with red open-top fare boxes.
    Regular cars 1940-1946, all cars from 1724 to 1852.
    Regular cars 1946-1948, all cars from 1701 to 1792.
Most of 28TH AV. S. (with A.M. trips on N. Emerson), 7-10-48 to 8-19-50.

CEDAR AVE., (south of 42nd), through line to loop, 11-28-26 to 1-2-29.
CEDAR AVE., shuttle south of 42nd, 1-2-29 to 9-17-33. Single end cars.
    All one-man 5-18-30. Regular car # 4.

"EXTRA" SERVICE OUT OF LAKE ST. STATION.

LAKE MINNETONKA, some Sundays, holidays, special events
CALHOUN BEACH, extra cars, summer Sundays, early years
FAIR GROUNDS, every year during Minnesota State Fair
INTERURBAN, extra trips to City Limits, until 4-18-53.

NORTH SIDE STATION, opened 10-25-14.

CHICAGO-PENN and CHICAGO-FREMONT, 10-25-14 to 5-1-29.

CHICAGO-PENN-FREMONT, 5-1-29 to 7-11-53.
See standard cars, 2000s, and trains.
One-man owls 6-1-32, Sundays 6-26-32, nights 5-14-34, Saturdays 10-1-49, mid-days 1-20-50, no conductor stubs 7-2-51, limited runs for old conductors 8-18-51 (10 conductors 8-18-51, diminished to 2 conductors 7-10-53.)

EMERSON-E. 25TH, 12-1-20 to 10-20-21.
(Providing Wash. Ave. service when Chicago cars moved to N. 7th St.)
Part of CEDAR-EMERSON, 10-20-21 to 11-28-26.
Part of 28TH AV. S.-N. EMERSON, 11-28-26 to 11-29-40.
One-man nights and mid 4-16-32, all 6-1-33.
Part of 28TH AV. S.-ROBBINSDALE, 11-29-40 to 7-10-48.
Included rush hour service on N. Emerson.
Cars to Robbinsdale equipped with red open-top fare boxes.
Regular cars 1172-1176, 1197-1201, 1222. In addition many others were equipped from time to time, some remaining on Robbinsdale for years; these may be mentioned:

1942 to 1946:	1392 1395 1663 1664 1800
1942 to 1948:	1567
1945 to 1947:	1597
1945 to 1948:	1591 1677
1946:	1665
1946 to 1947:	1578 1678 1820
1946 to 1947 (& 1947 to 1948 at Lake St.):	1700
1946 to 1948:	1654 1667 1668 1675 1780 1791
1947:	1816
1947~~x~~ to1948:	1583 1591
1948:	1195 1196 1390 1594 1669

(Red boxes installed were often left till cars went to shops for rehabilitation).
"Extra" pullouts on 28TH AV. S.-N. EMERSON, 7-10-48 to 8-19-50.
("Extra" Fremont A.M. rush pullouts ran via Wash., 8-19-50 to 7-11-53)

ROBBINSDALE-ST. LOUIS PARK, early 1920 to 12-1-20.
Regular cars 1538-1544.
ROBBINSDALE, 12-1-20 to 5-18-35.
Cars equipped with flag brackets until about 1930.
Regular cars to about 1928, 1391-1397, and slow cars 1032-1035.
About 1928, regular cars 1180-1184 and others.
In 1930, cars 1180-1184 and 1188-1192. Five of these~~x~~ retained GE216 motors as run cars: 1183 1188 1190-1192
One-man nights and mid, 2-15-32, all 7-1-32.
Cars ~~X~~ equipped with red open-top fare box.
Regular one-man cars, 1932-1933: 1302-1303, 1316-1318
1933-1936: 1302-1303, 1316.
ROBBINSDALE-FRANKLIN, ~~x2xx~~ 5-18-35 to 11-29-40.
Regular cars, ~~1933~~ 1935-1936: 1302-1303, 1316.
1936-1940: 1197-1200.

NORTH SIDE STATION.

LAKE NOKOMIS-CAMDEN, 10-25-14 to 7-1-19.
Part of LAKE NOKOMIS-CAMDEN, 7-1-19 to 11-28-26.
Part of 34TH AV. S.-N. BRYANT, 11-28-26 to 8-2-47.
One-man nights and mid, 4-16-32, all 6-19-33.
Part of 34TH AV. S.-N. WASHINGTON, 8-2-47 to 8-19-50.

Part of FORT SNELLING-N. WASHINGTON, 8-19-50 to 4-18-53.

BROADWAY & 20TH AV. N. (BROADWAY CROSSTOWN), 10-25-14 to 4-16-50.

"EXTRA" SERVICE OUT OF NORTH SIDE STATION.

FAIR GROUNDS, every year during Minnesota State Fair
INTERURBAN, extra trips to City Limits, until 7-11-53.
MINNEHAHA FALLS, for special events at Minnehaha Park.

SNELLING STATION.

INTERURBAN, 1909 to 10-31-53.
Included 6TH AV. N. line from 11-4-18 to 6-15-39.
See standard cars, and PCCs 1946-1953.
One-man owls 11-10-34, nights and Saturdays 4-29-50, mid-days in 1951; limited runs for old conductors, 4-4-52 to 10-31-53.
INTERURBAN, Minneapolis end of line, 10-31-53 to 11-28-53.

COMO-HARRIET INTERURBAN, 1909 to 6-27-10.
COMO LOCALS, fillins, extras, etc., to 7-11-53.

SELBY-LAKE INTERURBAN, 1909 to 6-27-10.
SELBY locals for many years; also see MERRIAM PARK line, equivalent to SELBY short line.
Some SELBY-LAKE runs from unknown year, to 7-11-53.
One-man nights 12-30-50, mid-days in 1951, all 4-4-52.
SNELLING-MINNEHAHA INTERURBAN, 1909 to 11-5-10.

MERRIAM PARK, 1909 to 11-8-20.
MERRIAM-MISSISSIPPI, 11-8-20 to 6-1-32.
MERRIAM PARK, 6-1-32 to 8-27-38.
One-man shuttle, mid-day only, 9-8-32; mostly used 1129, double-end

FORT SNELLING STUB, 1909 to 8-1-20. Double end cars.
Single truck dinkies to 1912.
1912-1920, regulars probably mostly 813 and 896.

PAYNE-PHALEN, 1909-1920.

GRAND AVE., 1909-1920.
PAYNE-GROVELAND, 1920 to 8-1-27. (Part or all?)
Part of GRAND AVE., 8-1-27 to 8-11-32.
Part of GRAND AV.-HAZEL PARK-MAHTOMEDI, 8-11-32 to 9-11-32.
All of GRAND AVE., 9-11-32 to 12-2-39.
One-man Sundays 7-24-32, nights and mid 10-3-32, all ~~6-1-33~~ 7-1-33.
Part of GRAND-MISSISSIPPI, 12-2-39 to ~~11-1-52~~. 5-17-52; ALL, TO 11-1-52.
See standard cars, 2000s, and PCCs 1947-1952.

RANDOLPH EXTENSION, June 1916, perhaps until 6-8-21. Single track shuttle line at least part of that time. Double end cars 875-876.
Part of RANDOLPH-HAZEL PARK, 6-8-21 to 8-1-27.
Part of RANDOLPH-HOPE, 8-1-27 to 9-11-32.
Part of RANDOLPH-MAHTOMEDI, 9-11-32 to ~~5-17-52.~~ 11-3-51.
One-man owls 7-17-32, Sundays 7-24-32, nights and mid 9-8-34, all one-man Dec. 1938.
Cars scheduled to Mahtomedi equipped with flag brackets; many gatecars equipped, and one-man cars from 1809-1840.
PART OF RANDOLPH-HAZEL PARK, 11-3-51 TO 5-17-52.

SNELLING AVE., 6-8-21 to 9-6-52.
One-man nights and mid 4-1-32, all 4-4-33.
2000s were regular cars, probably from 1927, to 1951.

SNELLING STATION.

RICE & STATE, 1909 to 11-4-14.
WESTERN & SO. ROBERT, 11-4-14 to 11-8-20.
    Cars first equipped with signs, 762-767, 809-812, 915-918.
WESTERN-JACKSON, 11-8-20 to 7-13-32.
    Regular cars during entire period, 1124-1133.
WESTERN AVE., shuttle, 7-13-32 to 8-23-41.
    One-man 9-9-32, double end cars, mostly used # 3.

HAMLINE-UNION DEPOT, 1909 to 11-8-20.
HAMLINE-SO. ROBERT, 11-8-20 to 10-29-38.
    One-man nights and mid 6-16-32, all 6-11-34.
HAMLINE-STRYKER (Part of), 10-29-38 to 12-2-39.
Part of HAMLINE-CHEROKEE, 12-2-39 to ~~11-1-52.~~ 5-17-52; ALL, TO 11-1-52.
    See standard cars, 2000s, and PCCs 1949-1952.

Part of ST. CLAIR-PAYNE, 8-1-27 to 10-30-48.
    One-man nights and mid 7-18-32, all 7-13-33.
Part of ST. CLAIR-PAYNE-PHALEN, 10-30-48 to ~~9-6-52.~~ 5-17-52; ALL, TO 9-6-52.
    See standard cars, 2000s, and PCCs 1947-1952.

FOREST ST., 11-10-13 to 10-23-14. (From Duluth Station??)
DALE-PHALEN, 10-23-14 to ~~5-3-52~~ 10-30-48.
    Part of service to Duluth Station at unknown date.
    One-man nights and mid 6-6-32, all 4-13-33.
DALE ST., 10-30-48 to 5-3-52.

"EXTRA" SERVICE FROM SNELLING STATION.

ST. PAUL-STILLWATER: Sundays, holidays, and special events.
FAIR GROUNDS, every year during Minnesota State Fair, to 1952.
SO. ST. PAUL, "extra" A.M. pullouts, from early years to 5-17-52.

7TH ST. STATION, renamed DULUTH AVE. STATION 9-25-18.

ST. PAUL-STILLWATER, 1909 to 8-11-32. See suburban cars.

RANDOLPH-HOPE, 1909 to 1915.
    11-25-13, cars 950-955 equipped with sign "RANDOLPH OWL", for
        owl to be run to Snelling and Grand.
SNELLING AVE.-E. 7TH ST., 1915 to 6-8-21.
    Included Hazel Park running from 1917 on.
RANDOLPH-HAZEL PARK, 6-8-21 to 8-1-27 (Part of).
Part of RANDOLPH-HOPE, 8-1-27 to 9-11-32.
Part of RANDOLPH-MAHTOMEDI, 9-11-32 to 11-3-51.
    One-man owls 7-17-32, Sundays 7-24-32, nights & mid 9-8-34,
        all one-man Dec. 1938.
    Cars to Mahtomedi equipped with target brackets.
    See suburban cars, some used to 1935.
    See front exit cars, some used to 1938.
    See one-man car section for one-man Mahtomedi cars.
Part of RANDOLPH-HAZEL PARK, 11-3-51 to 5-17-52.

Any of??? PAYNE-PHALEN, 1909-1920.
Part of??? PAYNE-GROVELAND, 1920 to 8-1-27.
Part of??? GRAND AVE., 8-1-27 to 8-11-32.
Part of GRAND AV.-HAZEL PARK-MAHTOMEDI, 8-11-32 to 9-11-32.

ST. CLAIR-HOPE, 1915 to 8-1-27.
ST. CLAIR-PAYNE, 8-1-27 to 10-30-48 (Part of).
    One-man nights and mid 7-18-32, all 7-13-33.
    See standard cars, 2000s, and PCCs 1947-1952.
Part of ST. CLAIR-PAYNE-PHALEN, 10-30-48 to 5-17-52.

??? FOREST ST., 11-10-13 to 10-23-14.
Part of DALE-PHALEN, from unknown year, to 10-30-48.
    One-man nights and mid~~ 6-6-32~~ 6-6-32, all 4-13-33.

SEVENTH ST., later FORT SNELLING, (locals), 1909 to 8-1-27.
7TH-MINNEHAHA-PLYMOUTH (INTERURBAN), 8-1-27 to 8-11-32.
7TH-MINNEHAHA-HOPE (INTERURBAN), 8-11-32 to 7-5-36.
    7th St. owl (local) one-man 7-17-32.
FORT SNELLING-7TH-HOPE, 7-5-36 to 12-2-39. Probably all one-man 7-5-36.
FORT SNELLING-MARIA-47TH AVE., 12-2-39 to 5-17-52.
    Running from Fort to 47th Ave. dropped 4-15-50, except some pullout
    See standard cars and 2000s.

RICE-SO. ST. PAUL, and INVER GROVE, 1909 to 11-8-20.
SO. ST. PAUL, 11-8-20 to 7-13-32.
RICE-SO. ST. PAUL, 7-13-32 to 5-17-52.
    One-man nights and mid 6-1-32 (probably Rice-Stryker line).
    Rice-So. St. Paul one-man nights and mid for sure 7-13-32;
        all one-man 6-19-34.

MISSISSIPPI & W. ST. PAUL, 1909 to 11-8-20.
    Called MISSISSIPPI-CHEROKEE HTS., at least by 1919.
CHEROKEE HTS., 11-8-20 to 6-1-32.
MISSISSIPPI-CHEROKEE HTS., 6-1-32 to 12-2-39.
    One-man Sundays 7-11-32, owls 7-16-32, all 4-1-33.
Part of GRAND-MISSISSIPPI, 12-2-39 to 5-17-52. One-man.
    See standards , 2000s, and PCCs 1947-1952.

DULUTH AVE. STATION

Part of HAMLINE-CHEROKEE, 12-2-39 to 5-17-52. One-man.
See standards, 2000s, and PCCs 1949-1952.

BURNS AVE., single track shuttle, 7-1-14 to 9-23-31.
Double end cars, one-man, no fares.
Regular car mostly 897; also 896, 898.

RONDO-MARIA, 1909 to 12-2-39. See 2000s.
One-man nights and mid, 7-13-32, all 4-3-33.

JACKSON-STRYKER, 1909 to 11-8-20.
Used narrow 800s and 900s.
RICE-STRYKER, 11-8-20 to 7-13-32.
(May have gone one-man nights and mid, 6-1-32).
JACKSON-STRYKER, 7-13-32 to 10-29-38.
Narrow cars, 1124-1139, except those being rebuilt.
All one-man 9-18-32; used narrow one-man cars 1124-1128, 1131.
Two-man cars 1137-1138 maintained as spares until 1938.
Part of HAMLINE-STRYKER, 10-29-38 to 12-2-39.
All of RONDO-STRYKER, 12-2-39 to 1-24-48.
Used 2000s as regular cars.

FAIR GROUNDS, run every year to Minnesota State Fair, to 1951.